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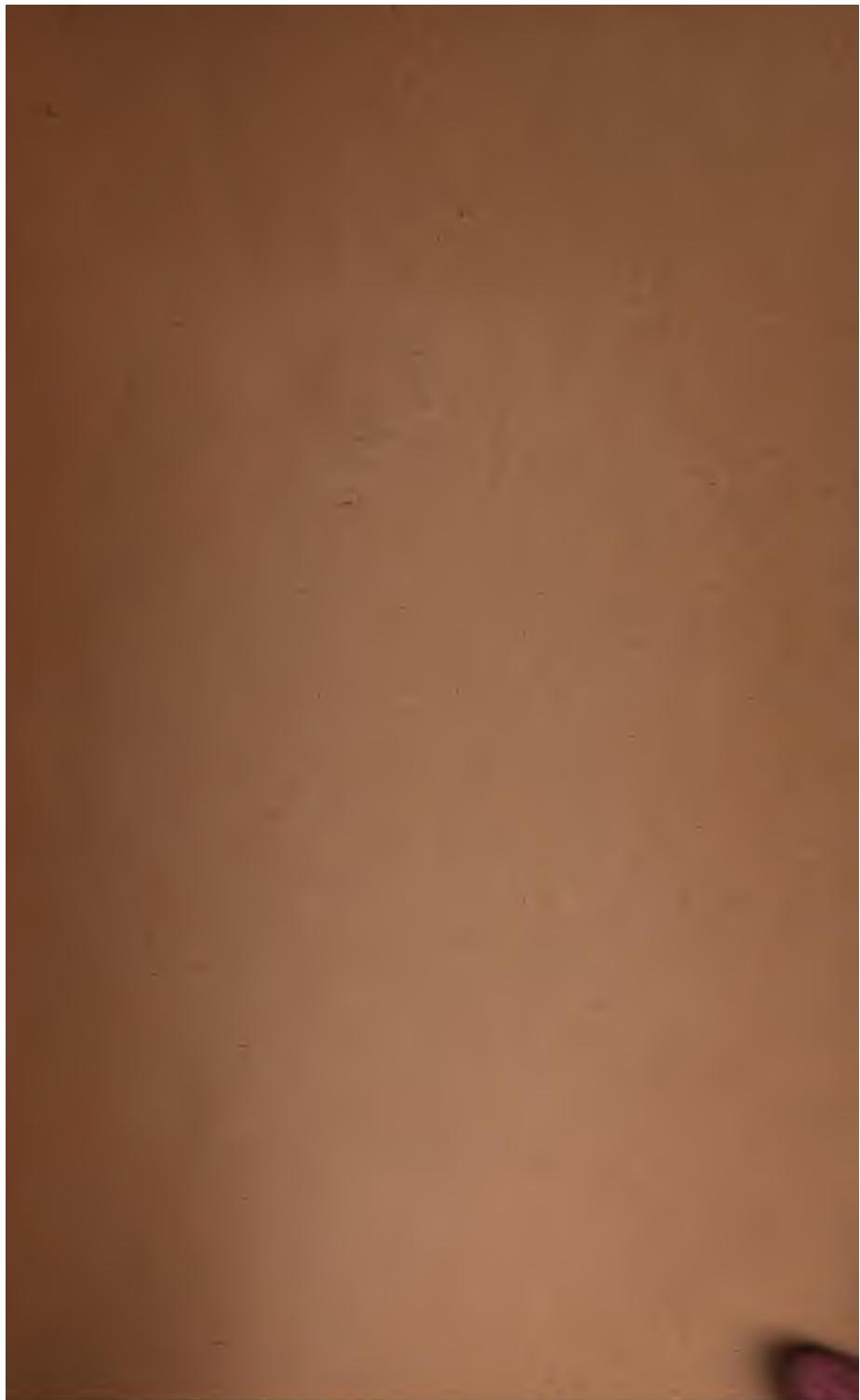
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PART I.

PAPERS READ BEFORE THE SOCIETY

DURING THE SESSION 1887-88.

SYMPOSIUM—IS MIND SYNONYMOUS WITH
CONSCIOUSNESS?

I.—*By SHADWORTH H. HODGSON, M.A., LL.D., Honorary Fellow of Corpus Christi College, Oxford; President.*

THIS question being one of nomenclature and definition, and definitions being ultimately dependent on the convenience of those who make and use them, it seems *prima facie* as if the question should run, not whether mind is synonymous with consciousness, but whether it *ought to be* so, and consequently whether it shall with us, for purposes of discussion, be agreed to use it in that sense.

We must remember, however, that convenience of usage for the future is greatly, if not mainly, determined by the prevalent usage in the past and present. If any usage is deeply rooted in habitual and general practice, it may be better to continue it than attempt to change it. Accuracy of definition, which *per se* is the greatest convenience, would in that case have to yield to long continued custom.

But in the present case it seems to me that both usage and accuracy of definition alike concur in deciding the question whether mind is synonymous with consciousness, and to decide it in the negative.

In the first place we want a nomenclature suitable for discussion, in which no particular philosophical or psychological theory has been adopted, and consequently one which does not involve or

favour one theory in preference to another. We also want a nomenclature which shall be capable of common use; common, I mean, not merely to different philosophical and psychological schools, but also to men in general, or, if I may use the expression, to pre-philosophic man.

Standing on this general ground of common sense, and reviewing the phenomena as a whole, we may reduce them to the following general and diagrammatic expression:—

(1) Some one's—(2) consciousness of—(3) something or, in partly Cartesian phrase, to the three corresponding heads:—

(1) *Res cogitans*—(2) *Cogitatio*—(3) *Cogitata*.

And the question is, whether *Mind* is to be brought under the first or under the second head; whether it is to be identified with "some one" or with his "consciousness"—with *res cogitans* or with *cogitatio*.

If we identify it with the first we make Mind an agent, the Subject of consciousness, but leave entirely open the question whether this agent is of a physical or of an immaterial nature. If we identify it with the second, we either dissociate it from the Subject, and thus obtain a merely verbal synonym of consciousness, which, to say the least, is a luxury rather than a necessity, or else we adopt the theory that consciousness has agency in itself, or is Subject and consciousness in one.

Now custom and usage have certainly linked together, by habitual association, the term mind with the thought of agency—*mind* always suggests itself as an agent, a *res cogitans*. As, for instance, in the well-known line—

νόος ὄργη καὶ νόος ἀκένει· ταλλα κωφὰ καὶ ταφλά.

What sees, what hears, is *mind*;
All else is deaf and blind.

(Epicharmus, l. 253. In *Fragmenta Philosophorum Græcorum.*, ed. Mullach, vol. i., p. 144; Didot, Paris.) And perhaps more plainly still in Virgil's—*Mens agitat molem, et magno se corpore miscet*. Consequently, if we adopt the nomenclature which identifies mind with consciousness, we practically favour the adoption of the hypothesis—that consciousness has agency in itself, or is Subject and consciousness in one. And, therefore, until this hypothesis has been legitimately established, and even in order to examine and discuss it fairly, it is better to abstain from a nomenclature which identifies mind with consciousness.

But this is not all. There are certain theoretical considerations which militate strongly against the identification.

1. If we identify mind with consciousness, what are we to do with those states and operations, commonly called mental, which are either partially or entirely below the threshold of consciousness, and some kinds of which never rise above it, including, in the opinion of many psychologists, the whole motor and efferent action of brain and nerve—states and operations which, though unconscious, yet form parts of one connected system with those which are attended with consciousness, and the existence of which, as matter of inference, is undoubted? Are these to be excluded from mind, as they must be, if *mind* and *consciousness* are to be made synonymous? In view of these states and operations *mind* is the larger term of the two.

2. There is another sense in which *consciousness* is a larger term than *mind*. It has two quite distinct but inseparable characters: (1) as *content*, in which character it includes all objects, all *cogitata*, as being the knowledge, but not in any sense the producer, of them; and (2) as *process*, in which character its states and operations are products one of another, antecedent states and operations producing and determining subsequent ones, as parts of knowledge, the former being the *causæ cognoscendi* of the latter, but not in any way producing the real objects thought of by them. Consciousness in this sense is τὰ πράγματα, being the knowledge, or subjective aspect, of all things whatever. *Mind*, on the other hand, is the name of one kind, and one kind only, of the objects known. A mind is an individual real existent, one among τὰ ὄντα.

Thus, while in one direction the term *mind* overlaps the term *consciousness*, in another *consciousness* overlaps *mind*. The two cannot be co-extensive, and therefore making synonyms of them can lead only to perpetuate the confusion of thought from which it seems to spring.

3. The very form of the word *consciousness* shows that it means an attribute, not a subject of attributes. The word *mind* on the other hand indicates a subject and not an attribute. *Mind* must be generalised in meaning, so as to signify mentality, or else *consciousness* must be particularised so as to mean a *consciousness*, before the two terms can be treated as synonyms. And this alone would, in my opinion, be a fatal objection to doing so, namely, that it leaves undetermined and unmarked which of the two ways it is intended to take, I mean, whether it is intended to generalise *mind*, or to particularise *consciousness*.

The word *mind* has, no doubt, a meaning of its own, just as much as the word *consciousness*, though its precise meaning is by no means

equally evident. It is a name for Subjects, and characterises them by picking out one of their functions, or group of functions. In my own opinion it is best employed to mean the Subject considered as a reasoning being, that is, in its intellectual or thinking functions; just as the *Will* is a name for the Subject considered in its volitional or immanently active functions; the *Soul*, a name for it considered either in its vital, living functions, or else in its emotional and imaginative functions; and the *Person* or *Ego*, a name for it in its character of having the idea of Self, remembering its own states and actions, and referring them to itself. So it is also with the term *mind*, which thus receives a meaning in perfect harmony with the term *consciousness*, for the very reason that it is not attempted to identify them.

II.—*By DAVID G. RITCHIE, M.A., Fellow and Tutor of Jesus College, Oxford.*

By "Consciousness" I understand the fact of my being aware that I feel, think, act, or am acted on in any way. "Consciousness of an event" is the reference of an event to myself as knowing it. Consciousness is the most certain fact in the universe. It is the only absolutely certain, it is the ultimate fact. Attempt to think away everything else—the thinking (*cogitatio*) remains. "*Cogito, ergo sum*," may be so interpreted as to contain a fallacy (if we read more into "*sum*" than is contained "*in cogito*"); but "*Dubito, ergo cogito*," is absolutely valid. Now Consciousness, from the very meaning of it, includes in it an "*Ego*," an *I*. [In "*cogito*" the termination expresses the "*I.*"] Of course, the term "*Self-consciousness*" may be used in a fuller sense to express a recognition only arrived at by a process of reflection at an advanced stage in knowledge. We talk of simple and straightforward persons "showing an absence of self-consciousness," meaning that they are not in the habit of reflecting about self, of making self an object of thought: we cannot possibly mean that their conscious life does not contain a reference of all that happens to the self, as knowing subject. A self, or *Ego* (the Latin word is perhaps preferable, because we can keep it more free from irrelevant connotation), as the subject thinking, is *there* in the very fact of consciousness. Sensation implies it, as soon as sensation can possibly give rise to any knowledge, as soon as feeling becomes "*I feel this.*"

On the other hand, "the human Mind" is a hypothetical substance to which we can ascribe qualities. We do not *know* it in

any strict sense. We assume it for convenience. We talk of it as something parallel with the body, existing alongside of (or in) the body; and then we proceed to enquire into the relations between mind and body, not noticing that one of the pair is a merely conjectural entity. The body we know as a thing, or complex of things, existing in space and time; we have no such knowledge of the Mind as a *res cogitans*. The "I" is what *knows*, and for that reason can never be fully *known*. The attempt to make it into an object, a thing existing among other things, involves the attempt to jump outside oneself, which is impossible. For convenience we may regard ourselves as mere objects, as existent *things*; but that is only a convenient psychological fiction—inconvenient, or worse, as soon as we forget that it is a fiction. We can only properly and fairly study the human Mind by studying what man has *done* in the world (language, institutions, religions, art, &c.).

Thus, though I should follow the President, by answering our question in the negative, my reasons for doing so are very different.

And I must venture in particular to disagree with several phrases in his paper. As already said, "*res cogitans*" (*see p. 6*) seems to me a fiction. "*Cogitatio*" is a fact. "*Ego cogitans*" represents all that we can know about the subject that thinks. What the *Ego* is we cannot say from direct knowledge of it, because we cannot get outside ourselves to look at it. Nor can we know any other self except as a series of events, which we ascribe as acts to a conjectural unity on the analogy of our own self.

Further, is there not an ambiguity in the word "subject"? (*see p. 6*). In the sense in which we distinguish "subject thinking" from "object thought," the conscious self (which we might call "consciousness"—though with some awkwardness, because the word has the abstract termination "ness")—to distinguish it from the more fully grown "self-consciousness"), the conscious self is the subject. But it does not, therefore, follow that it is a subject in the sense of a substance, a thing, underlying qualities, though, of course, like any other noun, it may be made the logical subject of predicates or attributes.

It will be apparent that I have used the term "Ego" in a very different sense from the President (*see p. 8*). It seems convenient to keep the word for the mere "I" which "know," "think," &c., imply, whereas the word "person" is only applicable to human beings in a complicated social organisation, which bestows on them a status with legal and moral rights and duties, i.e., "Ego" I keep as a logical and metaphysical term (a term in that *Erkenntniss-theorie* of which the President, like Lotze and others, has become impatient); whereas "person" is a term only applicable in Ethics or Jurisprudence.

If it be asked, What is this "Ego"? Is it you, or I, or he, or anyone in particular, or is it no one in particular, but some absolute "Ego"?—to this question I must answer, though aware that I shall seem to be quibbling, Of course "Ego" is always "I," and not "you," or "he," or "it," but how the absolute presupposition of all knowledge and existence which because it makes Time possible cannot be in Time, how this eternal *Ego* manifests itself in each of us, who calls himself "I," that question I must leave to *speculative* metaphysics. That our many finite individual selves (as we consider them) imply a self, one and eternal (*i.e.*, time-less), I believe to be an inevitable logical conclusion from the fact of knowledge. But how it is so is the one great mystery to which every philosophical problem drives us back, and the solution of which is the perpetual endeavour of all the great metaphysical systems and of all religions, so far as religion implies a theory of the universe. These problems, moreover, are not merely theoretical as is obvious enough in the case of *evil*. But why call this unity of the Cosmos a "self"? Why not be content, like the ancients, with calling it $\tau\delta\ \epsilon\nu$ or $\tau\delta\ \sigma\nu$? The answer to this is, that, apart from the unity of self-consciousness, any unity of the Cosmos is a mere conjecture. Through the senses we learn not unity but multiplicity. Yet it is true that science implies an ultimate unity. This unity we know as a fact in the "ego" which we cannot escape, do what we will. Therefore it is "truest" to call the unity "ego." This is the advantage in terminology which modern philosophy has over ancient. We have found a higher category, that is all.

Certainly we may call Consciousness an attribute, but I cannot think that much is gained by calling it an attribute of the mind except for the special purpose of marking off *unconscious* or *sub-conscious* *mental* activities from those which are conscious. Consciousness may be considered as an attribute of certain highly organised matter, or, if the word be used to express, not a more or less permanent quality, but an occasional phenomenon, it may signify an event, or set of events, which takes place when certain material conditions are fulfilled. Consciousness, then, is a phenomenon whose material conditions may be examined by a natural science, just as are the conditions of light, electricity or life. But I do not see that this is inconsistent with regarding consciousness as also the ultimate fact. Though, as a matter of history, it is the result of a process of development, yet logically it is prior to the whole universe, because implied in all our knowledge of it.

III.—*By G. F. STOUT, M.A., Fellow of St. John's College, Cambridge.*

THIS question presents two aspects, according as it is considered from a psychological or from a metaphysical point of view. Psychology investigates the steps by which knowledge grows. Metaphysics investigates the ultimate nature of what is known. Thus for the Psychologist the problem before us takes shape as follows:—Is it legitimate in explaining the way in which knowledge arises to posit unconscious mental processes as taking place within the mind whose development we are tracing? The metaphysician, on the contrary, has a very different question to discuss. He must inquire whether unconscious mental processes can have being, apart from any consciousness whatever, including that of the psychologist, who assumes them. To the former of these two questions I answer, Yes; to the latter I answer, No.

I. From the psychological standpoint the phrase, mental but unconscious, may have a definite and useful meaning. The word "mental" may, I think, be applied with propriety to an extra conscious process, of which the course and working may be traced by representing it as analogous to conscious psychological processes, and as forming part of the same total dynamical system with them. In assuming such a process we should only be pursuing a course similar to that on which all our knowledge of physical nature depends. In order to trace and account for the changes undergone by physical things, we must of necessity picture them as invested with a sensible appearance, even when they are unperceived. This we do even in the case of ultimate atoms, which we have good reason to believe could not appear as we represent them. In like manner, the psychologist may, if need be, establish continuity between events in consciousness by interpolating between them as connecting links, trains of events not given in consciousness, but regarded as more or less analogous to those which are so given. The analogy of these hypothetical processes to conscious processes, and their continuity with them as forming parts of the same dynamical system, could only be expressed by applying the term mental to both. Thus it appears that from the psychological standpoint, something may conceivably exist which is mental and at the same time extra conscious. It is, therefore, illegitimate to give a definition of mind which excludes this possibility. Mind for the psychologist is not synonymous with consciousness.

Before leaving this part of the subject I must notice the question which the President raises, whether mind is *res cogitans* or *cogitatio*. As to the correctness of Mr. Hodgson's distinctions I have nothing

to say. But I am strongly of opinion that mind cannot be identified either with *res cogitans* or with *cogitatio*, or with *cogitata*. So far as mind implies consciousness it implies all that is logically pre-supposed in consciousness, just as the word triangle implies figure and sides and angles and threeness. By giving it this meaning we do not prejudge any question. All that is implied in the word consciousness enter into the connotation of the word mind. In affirming this we in no way anticipate the result which logical analysis of the import of the word consciousness may yield.

With the statement that mind is a subject and consciousness an attribute I agree. I fail, however, to see that a subject in the grammatical sense is anything distinct from its attributes in a perfectly determinate form.

II.—Turning to the metaphysical aspect of our problem, I ask whether the unconscious processes posited in psychology may exist apart from any consciousness whatever. To this question there can be but one answer if my explanation of what is meant by unconscious mental process be accepted. It is something which exists only for a very conscious person indeed, i.e., the psychologist. I do not mean to say that what the psychologist thinks and speaks of as unconscious mental process is in itself nothing. But I do affirm that, taken *per se*, it cannot in any intelligible sense be called an unconscious mental process.

From this point of view the question, Is it mind? is identical with the question, Is it some mode of consciousness? I may add that I can attach no other meaning than this to the apparently more general question, Does it exist?

For metaphysics, consciousness is the Alpha and Omega, the beginning and the end, through and for which all things are.

IV.—*By BERNARD BOSQUET, M.A., late Fellow and Tutor of University College, Oxford.*

I BEGIN by naming two problems, which I consider myself discharged from discussing, as they have not been discussed in the previous papers. 1. Can mind exist without consciousness, in the particular sense that design or purpose is to be found operative in unconscious nature? 2. Can consciousness exist without mind, in the particular sense that units of inorganic matter are to be regarded as charged with or consisting in elements of consciousness, not concentrated into individual minds?

Dismissing these two questions, I find the problem as stated by

both the President and Mr. Ritchie to turn on the fact that mind as a concrete name is taken to mean a thing or subject, while consciousness as an abstract name is taken to mean an attribute or general characteristic. Both writers, however, recognise that this lexicographical rule is not absolute, and what Mr. Ritchie says of consciousness as = the conscious self appears to me to apply precisely to mind when taken as a concrete name.

Starting from this point I shall *on the whole* dispute the conclusion at which in common they have arrived. I shall admit a difference in meaning between mind and consciousness; but I shall not consent to treat this as a difference in strictly philosophical usage. I shall maintain that mind and consciousness are co-extensive though not synonymous terms.

I think that English usage leaves no doubt that "my mind" and "mind" are capable of precisely analogous significations to those of "my consciousness" and "consciousness," respectively. In modern language, at all events, there is no real hindrance to using abstract terms as concretes. The practical distinction seems to me to be that mind is a popular and *prima facie* unreflective term, while consciousness is an analytic term of comparatively recent growth (Skeat does not mention it), and bears its analytic meaning on its face. It is the same relation as between feeling and sensation, or will and volition.

The views both of the President and Mr. Ritchie have the peculiarity that they rather tend to impeach, at all events the *natural* usage of the older and less reflective term. Mr. Ritchie regards mind as something not knowable, although habitually treated as a thing or hypothetical substance. The President regards it as including a false or disputable idea—that of agency, and as therefore neither identifiable with consciousness, nor to be assumed as real apart from consciousness. He proposes a use for the word, of which I cannot approve—"The subject—in its intellectual functions," apparently excluding the Will.

I have to examine these two ideas; that mind in the ordinary sense implies a thing or substance which is not knowable, but which is only assumed for convenience sake; and that mind in the ordinary sense implies agency, which is something disputable, and not attributable to consciousness. My purpose in doing so is on the whole to defend the ordinary usage.

My mind I take to be the totality of ideas and feelings attached to my sentient experience, which of course is not definable *qua* sentient, by identity of quality. This totality is coloured throughout by a self-identical character and set of purposes.

As Mr. Ritchie contends, it is not a thing among things in space. Space for me is in it. It is, therefore, not knowable as a thing in

space. The same may be said of a musical chord, of a colour system, or of a toothache. And, moreover, no thing could be in space if it were only in space. It must have a continuous quality, or identity throughout its extended parts, or else it would not present its parts as parts of a thing. Therefore the mind has only, in a stronger sense, a character which attaches to everything in space. And although not in space, it is unquestionably *qua* sentient, in time, though this relation also is only made possible by its being more than in time.

The only difference between my mind and a thing for knowledge, seems to me to be that my mind is a totality, and every thing is an abstraction within that totality. But I cannot see that my mind is a hypothetical substance in any sense in which a thing admitted to be knowable is not. A thing is a universal, a synthesis of differences, and my mind as a totality is the most concrete of all syntheses, and is not merely a unity in general, but a particular unity coloured throughout by a recognisable quality. I do not see how we can think of mind as not so coloured. To divorce mind from sense may be, perhaps, like divorcing the concave from the convex. A mind not at all in time, and viewing things purely *sub specie aeternitatis*, may be, I suspect, a creation of a false abstraction. But however this may be, my immediate point is that my mind is to its attributes precisely as the town of London to its attributes, and if the one is a hypothetical substance and knowable only by a fiction, then so is the other.

And secondly, I cannot see that my mind thus regarded becomes an agent or entity in any disputable sense. Nothing that we thus say about it tends to make it anything beyond its actual content. We imply no noumenon, except as a totality is a noumenon, because thought is needed to bind its differences together. The conception of agency would repay examination. I take agency to be the form assumed by imperfect explanation, when the matter to be explained consists of events in time. Therefore, in as far as my mind is a series in time, it would present, when being imperfectly explained, an aspect of agency. This carries no connotation of anything behind consciousness, but is simply the ordinary expression of a connected series in time in which we refer the latter part to the former, because we cannot refer the former to the latter, which we do not yet possess.

I cannot, therefore, admit that my mind is a fiction or hypothesis in a sense in which my consciousness is not, or that my mind implies agency in a sense in which my consciousness does not. When we speak of the mind of Christ, we mean the totality of a certain consciousness as consciousness, with a certain purpose and a certain

colour and mood. When we say, "My mind leans to that course of action," we are judging a predicate of a subject which includes it, and bringing order into a total complex of relations and events. If such a judgment is a predication of agency, then I think agency is a very harmless conception, and quite inevitable in judgment, whether about consciousness or about mind.

One further difficulty is, I think, simply solved by keeping to the analogy of a *thing*. Does my mind include unconscious states, and therefore include something which is not consciousness? Does poison, I should ask, include arsenic when no one is eating it, and therefore include something which is not acting in any way as poison? You may say, "Yes, because the conditions of the poisoning are permanent, although the poisoning is intermittent." This is plausible with the arsenic, because the *thing* persists in its other properties; but, of course, all these other properties can theoretically have their manifestation suspended, and in the case of mind this is so. If you say that the conditions must persist or the effect could not be apparent, I may reply, "Perhaps; but how do you know that the conditions of mind which persist in the breaks of consciousness are such as should be called Mind?" In ordinary life we cannot venture on this inference, or we do it very irregularly. You may call the pipe from which a fountain plays "the fountain" or not. The fact is, I do not think that in our usage we mean to apply mind to unconscious states. I think we characterise the subject by a feature which has continued identity, and leave this feature to take care of its own application. Intermittent identity is no hindrance to unity if the characters of the intermittent content are recognisable. Out of sight, out of mind; to call to mind; to mind in the sense of attending or remembering—all go to show that mind involves consciousness. To say that the conditions are there, that an activity is dormant, that an attribute is not being manifested—all simply mean that something is not happening, but we know, more or less specifically, under what circumstances it would be likely to happen again.

Therefore, apart from the two problems mentioned at first, I take mind to be convertible with consciousness: only while consciousness is a negative superficial term meaning the characteristic of being not asleep, mind rather means the totality of a consciousness in all its grades and with all its organised relations. Mind in the abstract, as Mr. Ritchie has said, no doubt should be looked for in its works; but what is the philosophy of mind if it is not the revelation by the analysis of these works of the conscious world or concrete consciousness of the artist, the citizen, or the saint?

What I have said determines my position towards Mr. Stout's contentions. I agree that in psychology as a working science we

may conveniently speak of unconscious mental states. But I see no use in shirking the paradox and pretending that we are not speaking of unconscious states of consciousness. If instead of unconscious mental states we spoke of unconscious states of mind, then I think our paradox would be unavoidable. It is, as Mr. Stout says, exactly parallel to talking of things as having sensuous qualities when not objects of sense. But I cannot sympathise with his perfect indulgence towards this supposed habit, which I believe that I have accounted for rightly above. We characterise things by their qualities without noting that the qualities are intermittent, but we do not mean seriously to ascribe to things out of reach of sense qualities analogous to, or identical with, those which they have for sense. If we speak of a thing which we do not see, as red, we mean that seen in a white light it would be red, we do not mean that it is something like red now. If we know the other properties which are relatively permanent, and are real conditions of red, we may, or may not, use red to = them, according as they seem remote or not. But apart from this, "red" for a red thing in the dark is merely a name of a problem, and that is what unconscious mental states are. We do not mean to pledge ourselves that they are at once mental and unconscious.

Therefore, in Metaphysics, I must, with Mr. Stout, reject even this shadow of a difference between Mind and Consciousness, because Metaphysics admits of no fictions. But I cannot accept Mr. Stout's reason for the identification of unconscious states with consciousness in Metaphysic, viz., because in reality they, like everything else, are relative to a knowing consciousness. This argument would prove equally well that an inkstand is consciousness. But an inkstand though in consciousness, is in consciousness as unconscious; a mind is in consciousness as conscious. It is not a question of the form of existence, but of the content. We assume in metaphysics that everything is in consciousness, but for that reason we go on to ask *how* in consciousness?

V.—*By S. ALEXANDER, M.A., Fellow of Lincoln College, Oxford; Vice-President.*

THOUGH the question is put before us as one of nomenclature, it is evident from the remarks of the previous speakers that their decision of the question of language rests upon fundamental differences as to the nature of the mind and consciousness itself. I shall, therefore, make no apology for beginning with this, the more important aspect

of the problem. I can only regret that the debate is graced by no representative of the strictly empirical psychology, and the more so because though I shall not come to quite the same result I believe myself to be in essential agreement with Mr. Bosanquet, and shall seem sometimes to be merely repeating "the song which floats last about the hearer's ears."

Waiving the ultimate question, I shall first try to show that, supposing we believe in the identity of mind and consciousness, our belief need not be disturbed by the arguments alleged against the identity. The President's fear is that to identify them would be to attribute to consciousness agency. The objection is hardly answered by saying with Mr. Ritchie, that the mind has been, and is, held to be passive, for the distinction is one of degree. When the part played by the mind itself in any mental state is more important or striking or more decisive than the contribution of the foreign cause, we regard the mind as active; in the contrary case we regard it as passive. But it is surely impossible to reproach consciousness with being an agent until it is explained in what sense we attribute agency to anything whatever. And it is the more unreasonable because our idea of agency is largely derived from the knowledge of the operations of our mind and will. A thing is, I think, called an agent, or said to be active when one or more events in the thing or states of it lead up to or are transformed into some other event or state, either in some other thing or in the thing itself. The brickbat that killed Pyrrhus was an agent, because such poor qualities and states as mass and fall were sufficient to crack the skull of a king. And if mind were nothing else but a complex of conscious states it would be an agent in exactly the same sense.

The grounds of Mr. Ritchie's view are very different; he denies that consciousness can, except by a psychological fiction, be regarded as a thing like other things; it is something unique, which is the condition of knowledge and of reality, is itself not in time, and is the reproduction of that consciousness which is the unity of the world. But this view seems to me partly to contradict facts, and partly to rest on an assumption. So far as it denies consciousness to be the object of knowledge, it contradicts a fact of which we have experience in every description which we give of our own mental condition or may read in the pages of a novelist. The difficulty of observing our minds does not prove that we cannot observe them. The assumption I allude to is the inference from the peculiar and unique character of certain mental states to the existence of a unique and peculiar subject, which is altogether out of line with what we call natural objects. The course of reasoning proves too much. If an electrical machine could think and speak (and

we may imagine its words would be more sparkling than I can represent them), it might say, "Electricity is unique and the source of all reality, and is thus entirely incomparable with any other thing; my electricity does not exist in a succession of flashes, but is the condition of such succession, and it postulates as the unity of the whole world an electricity of which mine is the reproduction." With this view all electrical thinkers would agree who held the truth of things to be what they are when seen *sub specie electricitatis*. We know they would be wrong, but they would be making an inference of precisely the same kind as the inference in question.

My own view is that the mind is a thing in precisely the same sense as all other things, and that it is a peculiar and unique thing in the same way as other things are peculiar and unique. The mind is a name which we give to the complex or unity of what we call mental states, just as the stone is the complex or unity of the states of the stone. These states are modes of behaviour towards all other things, but the thing itself is not different from its modes of behaviour but identical with them. They constitute it a thing because of their character, or quality, or content. But different things behave differently, and what constitutes their peculiarity is the difference in their modes of behaviour. The mind then is the unity of its states, a unity effected by what Mr. Hodgson calls their contents, and it owes its peculiarity not to being something entirely disparate with other things but to the peculiar nature of its states, in the same way as an animal differs from a stone, or an elephant from a tiger. Some mental states are entirely identical in man and the animals, but the most important and characteristic of them have the property that they imply a distinction between the actual feeling or impression and the idea. But this so-called distinction of the mind from its object I regard similarly as only one of the peculiar modes in which the mind behaves. Knowledge, again, is on this view merely a property or quality of the thing called mind, and to argue immediately from knowledge to reality I regard, therefore, as unwarrantable. My difference from Mr. Bosanquet is, I think, only one of expression; to speak of the mind as a "totality coloured by a particular quality" may give the idea of concealing the fact which Mr. Ritchie expresses by his doctrine of consciousness. There is, I think, no quality to colour the totality except the qualities of the states, which are combined into the totality.

If I go a step further it is not with a desire to raise fresh matters of debate, but with a direct reference to the ultimate question. So far from the mind being out of line with other things, I believe there is a perfect continuity between its peculiar states and theirs.

Hence I am unable to accept the proposition that consciousness is only an attribute of the brain. Any kind of consciousness, e.g., thinking, is really an attribute only of that totality of consciousness unified under the name of mind. The notion of a mere parallelism of brain and mind seems to me fictitious. The brain as brain is the mass of matter which we can dissect, and in which certain physical actions take place. When it becomes, as we say, conscious, it is no longer brain, but is consciousness itself. At a certain stage in the development of things, we arrive at that complex mode of behaviour we call consciousness; but that consciousness is brain only when considered in its merely physical behaviour, just as light may be considered physically as waves of ether but is itself light. True, consciousness depends on physical conditions, but, equally, everything else (e.g., electricity depends on conditions simpler than itself). At a certain stage you have the amoeba, at a higher stage you have the lion; so, at a higher stage still, you have the thing called mind, or consciousness, dependent on the things that precede it, and continuous with them, yet peculiar and distinct from them.

I come now to the question at issue; I have spoken of the states of the mind by the general term mental states in order to postpone the ultimate question. For in determining whether mind and consciousness are synonymous there is a twofold difficulty. One is the difficulty of language, what things the word consciousness covers. The other difficulty is of facts, viz.: to determine where mind itself begins. The preceding remarks were made in order to point out that this second difficulty is the same as meets us whenever we try to define where a peculiar species begins. Between it and its predecessors there is a series of intermediate links which render the determination of the species more or less arbitrary. It is natural that if mind is really a thing continuous with organic and inorganic things, we should be perplexed by states which seem neither physical nor mental. This is the case with the so-called unconscious states. How shall we determine whether these are states of mind, or merely of body? It is certain that the word mind has tended to limit itself to the higher states beginning with feeling. But the reverse was the case in Greek, where $\psi\nu\chi\acute{\imath}$ included any state from thought down to nutrition and growth. We have differentiated the soul into life and mind, but the difficulty of determining where animal leaves off and man begins is not greater than that of determining where life leaves off and mind begins.

There is the further difficulty as to the use of "conscious" and "consciousness." I have to notice first that the words are used in a narrower and a wider sense. In the strict sense we mean by

consciousness, to quote Mr. Ritchie, "the fact that I am aware that I feel, think etc." In other words, consciousness involves the element of attention. The limited meaning, is, I believe, the source of the metaphysical theories of consciousness. Ordinary language (as in the phrase—I have no consciousness of guilt) uses the word chiefly in this sense. But these states are quite highly developed states of mind. At other times, however, we include under the word consciousness (*e.g.*, we say of a paralytic, he is without consciousness), and certainly under the adjective conscious (*e.g.*, conscious life as equivalent to waking life or again the animals would be described as conscious), the whole of our feelings and ideas even where attention is not implied. I agree with Mr. Bosanquet that "consciousness" is for the most part a scientific term, while I think "conscious" is more popular. The phrase "states of consciousness" would hardly be intelligible to ordinary usage, and has been extended by science downwards over a wider area than is proper to it. And it may be noted how this process has reacted upon the word "mind;" for as the unconscious states have been shown to be intimately connected with the conscious the word "mind" has tended to move downwards, and we begin to feel less repugnance to the unnatural idea of unconscious action of the mind, though it is very doubtful whether such action is not merely an action of the brain.

We have, then, both to face the ambiguity of "consciousness" and to fix the limits of the mind itself. If we regard mind and consciousness as identical, as both applying to the waking life, we have the further difficulty of dreams, which are certainly operations of the mind, but are not so naturally described as states of consciousness. Yet we do speak of ourselves as conscious in dreams: in nightmares, for example, we are "conscious" of great weight upon us, and we have begun already to speak of the dream-consciousness, and from the expression waking-consciousness it is but a step to sleeping-consciousness. It seems to me then that there is no absolute answer to the question, that the terms are in a state of fluidity, and I believe the cause is the attention directed by psychology to subconscious and unconscious states, which has at once extended the meaning of the narrow word "consciousness" and shaken the stability of the word "mind." But the case may be truly stated by saying that, in their present use, mind and consciousness tend to coincide, but that consciousness moves more slowly, and leaves a margin below itself to which mind may be more naturally, but not exclusively, applied. "Mind" and "conscious" coincide more accurately still. On the other hand, the future use of the words is, I think, partly arbitrary, for, in the first place, we have more freedom with the word "consciousness," and, in the second place, we must leave it to the

physiologists and psychologists to determine definitely whether unconscious states are really more like mind or more like body. It would, I think, be a great convenience, no matter how we fix the limits of mind, if we could reserve consciousness for the more strictly conscious perceptive or apperceptive acts, leaving mind to embrace all mental states. But such a distinction would have to be recognised as arbitrary, and is sure to conflict with the popular use of, at any rate, the adjective "conscious."

VI.—*By DAVID G. RITCHIE, M.A., Fellow and Tutor of Jesus College, Oxford.*

(A Reply.)

As my position has been most severely attacked by Mr. Alexander, it seems best, for the sake of brevity, that I should confine myself to his criticisms, and chiefly to those made in the last paragraph on p. 17 of his paper.

1. If by "our minds" be meant the series of mental states of which we are conscious (with the addition of certain other sub-conscious or even unconscious states which it may, or may not, be convenient to call "mental"), I certainly do not deny that we can know and study these states as we study any other natural events. But I do not see how we can know *the consciousness of these states* in the same way that we know other objects. We cannot know the knower as we know the known. The attempt to do so involves a *regressio ad infinitum*. I must be conscious of being conscious of being conscious, etc., etc., of feeling something. We cannot, except metaphorically, get outside ourselves. I think Comte went too far in denying the possibility of psychology: but the psychologist has to be warned that his science involves more fictions and metaphors than other sciences. Mr. Alexander refers to the practice of novelists—Well, I consider that a good novelist makes more valuable contributions to the knowledge of mental phenomena than the professed votaries of psychology, just because he lets us see his characters *talking* (to themselves or others) and *acting*, instead of giving us imaginary mechanics about vivid and faint "aggregates" or imaginary chemistry about indissoluble association. This mythology of the ordinary psychologist is only excusable as Plato's myths are, because the subject is so very difficult, without having Plato's justification that the myths in themselves are beautiful.

2. As to Mr. Alexander's ingenious and meditative electrical machine, if its electricity is its thinking, and if this thinking be

really thinking, so that it can philosophize, then—on this quite impossible supposition—I should say that the electrical machine is perfectly right in its conclusions; for “electricity” would, in such a case, be just another word for “consciousness.” But if the electrical machine is supposed to have thinking as a quality superadded to its electricity—the supposition which alone gives plausibility to the illustration—the machine has committed a fallacy, such as I should be committing, were I to make the statement Mr. Alexander ascribes to it, because, with the help of a gutta-percha comb, in frosty weather I can get sparks from my hair.

3. As to what is said on page 18, “peculiarity and uniqueness” seem to me to lose all meaning, if everything is peculiar and unique. There is, of course, a sense in which mind is a thing, i.e., a subject of qualities, like any other thing; but to treat mind as a thing like other things which exist in space seems to me purely metaphorical. The difference between the subject of mental qualities and the subject of physical qualities is more important than the likeness. Mr. Alexander disclaims the parallelism between brain and mind (p. 19), but what he says on that very page seems to imply it. In the sense in which we can call stones, or animals, or brains “things,” I do not think that we can call motion, or life, or consciousness, “things,” unless, of course, we mean “moving things,” “living things,” “conscious things,” awkwardly using abstract for concrete terms.

Finally, when Reality is brought in as something in comparison with which “Knowledge” may be somewhat despised (see p. 18), I should like to ask our new “Realists” to explain what they mean by it. I have never yet heard any explanation of Reality which did not either explain it in terms of knowledge or tend to identify it with the Unknowable: and surely, after all the current commonplaces about experience and the relativity of knowledge, we are not going to have a return to Ontology or Metaphysics, in the worst sense of these terms—a science of things-in-themselves, apart from all relation to a knowing subject.

VII.—*By SHADWORTH H. HODGSON, M.A., LL.D.; President.*

(A Reply.)

I BEGIN by remarking that the only good of settling the present question of nomenclature is to arrive at a use of the words *mind* and *consciousness* which may be adopted in common by metaphysicians, by

psychologists, and by men in general. It is not an exclusive definition for one class only that is needed. The words are words in common use, and we want meanings for them which shall be common also.

But—here we come to a singular circumstance—all the papers read this evening, except my own, define the words for particular classes only. Mr. Stout, for instance, maintains that the term *mind* has quite contrary meanings in psychology and in metaphysic; and the other three contributors arrive at their conclusions only by first establishing each his own theory of Idealism—like the Cambridge undergraduate who could not approach a single question in his examination papers without first giving a full-length proof of the Binomial Theorem, which was, in fact, the only subject he had got up. Consequently, unless we accept Idealism, the proposed definitions fall to the ground. The three papers read by Mr. Ritchie, Mr. Bosanquet, and Mr. Alexander, are in reality proofs of three several forms of Idealism—like three heads of a Cerberus—from which the only conclusion to be drawn is that it is essential to Idealism to confuse consciousness with the subject of it. This confusion is among its *arcana imperii*, the secret of which it is dangerous to divulge.

Idealism resembles some cruel despotism, which maintains itself by fostering the vices of its miserable subjects; for Idealism prospers by fostering the confusions and the obscurities of popular thinking, and by employing every available ambiguity of language to make the confusion plausible.

I have to contend this evening singly against three Idealists and an ally, for Mr. Stout is an Idealist in metaphysic, though he seems to keep his metaphysic quite apart from his psychology—no doubt, greatly to the advantage of the latter; and my charge against Idealism is that it confuses and identifies *knowing* with the *knower*, whereas I maintain that consciousness is a knowing, but not a knower, and the subject (whether called Ego or whether called Mind) is a knower, but not a knowing.

Mr. Ritchie's paper agrees with my conclusion, that *mind* and *consciousness* are not synonymous, but for reasons, as he truly says, very different from mine. It is in these reasons that the main interest of his paper consists. Mind, he says, is not synonymous with consciousness, because mind is merely "a hypothetical substance to which we can ascribe qualities," which "we do not know in any strict sense," but "assume for convenience." The *Ego* is very different, and the relation of the *Ego* to consciousness is the main theme of his paper.

This being so, it is remarkable that he never explicitly draws the conclusion to which his argument seems to point, that the *Ego* is synonymous with consciousness, although Mind is not. It would have been interesting to see how Mr. Ritchie's answer would have run had the question been—*Is the Ego synonymous with consciousness?*

Now, the reasons given in my paper for mind not being synonymous with consciousness cover the case of the *Ego* also. They cover the case of *any* term applicable to the thinking subject as the subject of consciousness. But of this Mr. Ritchie takes no note whatever. He objects to my calling the *Ego* a *res cogitans*, a thinking *thing*, but he omits to notice my alternative expression, "*some one's*" consciousness. He confines himself, in answering the question proposed, to the ground of the special definition which he gives of the term *Mind*. But at the same time he seizes the occasion to give us his theory, or part of his theory, of consciousness, and there he leaves us.

But inasmuch as Mr. Ritchie maintains that the *Ego* holds a very different relation to consciousness from that held by *Mind*, it is requisite to show that against its being made synonymous with consciousness the very same reasons hold good as hold good against *Mind*. This I will show from Mr. Ritchie's own words. In his first page he says: "Consciousness of an event is the reference of an event to myself as knowing it;" and again: "Consciousness, from the very meaning of it, includes in it an 'Ego' or an 'I';" and again: "A Self or *Ego* as the Subject thinking is *there* in the very fact of consciousness."

Now if, as Mr. Ritchie says, in consciousness I refer an event to myself as knowing it, I clearly have some knowledge or awareness of myself as knowing, as well as of the event which I refer to myself. My *Ego* is both knowing and known. I not only *am*, but I am *known as*, the Subject thinking. I am an object to myself in consciousness. This special object is called usually, and by Mr. Ritchie, the thinking Subject. The *Ego*, therefore, is both an object in consciousness and the pre-supposition or Subject of consciousness.

Now, my contention is that the *Ego*, as that particular object which is the Subject and pre-supposition of consciousness, cannot, without logical contradiction and absurdity, be made synonymous with the consciousness which is its function or its possession. And this contention, which was contained in my paper, Mr. Ritchie makes no attempt to meet.

But I wish now to go farther. Granting to Mr. Ritchie, for the sake of argument, that the *Ego* is conscious of itself as the Subject of and in all its consciousness, it does not follow that the *Ego* itself is included in consciousness; it is only the awareness or knowledge

of the Ego which is so included. It is as object, not as Subject, that it is part of consciousness. Mr. Ritchie's first sentence runs : "By consciousness I understand the fact of *my being aware* that I feel, think, act, or am acted on in any way." Just so. The Ego sustains two characters in consciousness ; it *is* conscious, and it is *known* to be conscious ; and it is only in the latter that it is included in consciousness. In the former it is contra-distinguished from consciousness as its Subject and pre-supposition. But this distinction Mr. Ritchie never draws. And when, without drawing it, he identifies *cogito* with *cogitatio*, as he does at p. 9, we naturally suppose him to hold that the Ego in *both* characters is included in *cogitatio*. This is a patent ambiguity.

But this is not the only ambiguity which that sentence contains— "By consciousness," he says, "I understand the fact of my being aware that I feel, think, act, or am acted on in any way." This, if literally taken, is an absurdity which cannot be admitted for a moment. If he had said, "By *my* consciousness I understand," &c., that would have been unobjectionable. But as the words stand they identify consciousness in general, wherever found, with Mr. Ritchie's consciousness, which is inadmissible, and causes ambiguity. For we naturally read the words at first as if he had said "*my* consciousness," and only afterwards find that consciousness in general is held to have been intended. The difference is great.

If Mr. Ritchie stands to the assertion that his Ego has an immediate knowledge of itself as the thinking Subject of its own consciousness, well and good. No one can contradict him there, on the ground of his own immediate experience; but then the certainty of that knowledge depends on its individuality and immediateness to Mr. Ritchie. It cannot be extended to the consciousness of any other individual, if any such there be, or to the nature of consciousness in general. For my part I doubt the fact that any Ego has an immediate knowledge of itself as the Subject of its own consciousness. I think that an Ego (supposing it to exist) may be mistaken even about itself. To discriminate what is immediate from what is mediate in knowledge is always difficult, and the more familiar the knowledge the greater the difficulty. The bearing of these remarks upon Mr. Ritchie's doctrine of the "Eternal Ego," will be sufficiently obvious.

In conclusion, I would say that what Mr. Ritchie appears to me to do in this paper is, first, to take an unanalysed fact of pre-philosophic common sense, namely, *cogito*, the "I think" (a fact which, as a fact of common sense, is familiar and indubitable), and refuse to analyse it, even though his own description supplies the means and shows the necessity of doing so; and then, secondly, to make this

fact, unanalysed, serve as the foundation-stone of philosophy. He mistakes the statement of it for a *philosophical* truth, when it is only a *pre-philosophical* one.

It will be well to proceed next to Mr. Bosanquet's paper, since the view which it develops stands in such close connection with Mr. Ritchie's on one side and my own on another.

I note in the first place that he understands Mr. Ritchie's meaning to be, that consciousness is equivalent to the conscious self, though I think this is not explicitly stated by Mr. Ritchie, who does not go farther than saying that *I plus thought* is equivalent to thought, *cogito* as a whole is equivalent to *cogitatio*. And then he goes on to maintain that what he understands Mr. Ritchie to say of consciousness as equivalent to self applies to mind when taken as a concrete name, just as much as it does to self. Thus, Mr. Ritchie holds that consciousness is equivalent to the conscious self, and Mr. Bosanquet that consciousness is equivalent to the conscious mind. What Mr. Ritchie calls Self or Ego, Mr. Bosanquet calls Mind. Both views are alike opposed to mine, which is that neither the Ego nor Mind is equivalent to consciousness; I hold that to *be* consciousness and to *have* consciousness are two things and not one.

Mr. Bosanquet next states his own answer to the question proposed. Mind and consciousness, he says, are not synonymous, but co-extensive terms. That is to say, they have different meanings, different connotations, but the same application, the same denotation, applying to one and the same existent or set of existents. Mind is the popular, unreflective term for that existent, and consciousness the analytical term for it. The philosopher uses consciousness to name the same thing for which the non-philosopher uses *mind*.

Observe, if these terms had the same meaning or connotation as well as the same application, they would be synonyms; and this Mr. Bosanquet says they are not. They have, then, different meanings, but being co-extensive, they must be terms for the same thing, that is to say, this same thing must have at once all the properties expressed by the one, and all the properties expressed by the other. The analytic term is not to be a substitute for the popular term, but an addition to it. Each term has a meaning of its own, and both meanings are applicable to the same thing. In other words, the philosophical usage is to make an amalgam of the meanings of the popular and the analytic terms, so that when we say consciousness, *subauditur* mind, and when we say mind *subauditur* consciousness. I repeat, the philosophical usage, according to Mr. Bosanquet, is this; he is not describing merely what the ordinary usage is, but defending

it; and that he is defending it is proved by his subsequent use of it in the sequel of his paper.

Now, I ask, can any proceeding be conceived more confusing than this, more certain to wrap the whole subject in hopeless obscurity? The advantage of having an analytic term in place of a popular one is not only thrown away, but it is actually made the means of further complication, by adopting the popular term as equally applicable with the analytic term, thus giving it a philosophic rank and value which it had not before.

These points premised, I come to particular arguments. Mr. Bosanquet says that there is no real hindrance in modern language to using abstract terms as concretes. Exactly so; that is the very source of the confusion. Language leads us, prompts us, helps us, to confuse the distinctions of thought. This prompting is not to be welcomed, but accepted as a necessity, the effects of which must be carefully guarded against. Mr. Bosanquet says that "my mind" and "mind" can be taken analogously to "my consciousness" and "consciousness." This, of course, is true, but entirely misses the point of the objection against confusing the general with the particular meaning of general terms. The *general* terms in both pairs, *mind* in one pair, and *consciousness* in the other, are confusing because they may be taken either as *general* or as *collective* terms. My mind, *versus* mind (*general*) is not the same thing as my mind, *versus* all minds (*collective*). My consciousness *versus* consciousness (*general*) is not the same thing as my consciousness *versus* all consciousness (*collective*). The particular and the collective terms alike include a subject and an attribute, a mind and its mentality, together. The general term includes only the attribute. Hence the confusion in the use of general terms so warmly welcomed by Mr. Bosanquet.

At p. 13, we come to the definite statement "My mind I take to be the totality of ideas and feelings attached to my sentient experience." This leads him to agree with Mr. Ritchie, that this totality (which is his mind) is not a thing among things in space. "Space for me is in it." I suppose, in the same sense as, *for the map*, England is in the map and not the map in England. I pass over paradoxes of this sort. But I must make one remark on Mr. Bosanquet's restriction "for me." This restriction must be either nugatory or explanatory. But, if explanatory, it is falling back upon Mr. Ritchie's position, that *Self* is more closely bound up with consciousness than *mind* is, since to explain how space can be *in the mind*, it has to be limited to *space for me*, as something which is better known than space simply. The mind theory of consciousness thus falls back at a pinch upon the self theory.

There is a well-known line in poetry "My mind to me a king-

dom is;" but Mr. Bosanquet goes much farther than this when he says that his "mind is a totality, and everything is an abstraction within that totality." By this he must mean that this table, for instance, round which we are seated, is an abstraction, and Mr. Bosanquet's mind the totality from which it is abstracted by Mr. Bosanquet's thought. I only ask on this whether Mr. Bosanquet considers that he is here "defending the ordinary usage" of the term mind?—which he says is, on the whole, his purpose.

Again, when he says "a thing is an universal synthesis of differences"—is this put forward as conformable to ordinary usage? I should say it was quite the reverse. We invariably treat a "thing" as an individual or singular, a creature of Nature, and opposed to an universal or general, which is a creature of Logic. It is in its conceptual analysis only that a "thing" is "a synthesis of differences." Take a pebble on the beach. It is not built up by Nature as we build up its *Begriff*, so much hardness, so much weight, so much roundness, so much smoothness, so much whiteness, &c., &c. These are only our way of understanding the pebble. In nature it is the product of natural forces, the result of its history.

But I must hasten to Mr. Bosanquet's reply to my own remarks about Mind involving agency. In the first place, there is nothing in my paper which implies that agency is a "false or disputable idea," or which tends to discredit the reality of that which involves it, namely, Mind, as Mr. Bosanquet seems to think. On the contrary, if Mind is a real thing or substance, whether material or immaterial, it must be conceived as having and exerting what we call agency; just as we conceive material things as having energy and exerting it. Agency is only a more general term including energy, which latter usually carries with it the suggestion of material substance. That we do not fully comprehend the nature of either energy or agency *per se*, is no argument against something really operative being intended by the names. It is not I, but Mr. Bosanquet, who wishes to get rid of agency out of the conception of mind; I wish to retain it in that conception, but in the character of an *explicandum*, not of an *explicatio*.

To get rid of it somehow, is part of Mr. Bosanquet's general drift, as I understand it, which is to obliterate the distinction between consciousness and the conscious being between being consciousness and having it. His mind, he tells us, is "the totality of ideas and feelings attached to his sentient experience," which I suppose is another expression for the *totality of his consciousness*. This I can understand in no other way than as an adoption of the second of my two alternatives, that is, identifying *mind* with *consciousness* or *cogitatio*, and not with "some one" or "*res cogitans*." The question

is, in what sense can consciousness, or the totality of consciousness, apart from any supposed subject of it which is not itself, be said to possess and exert agency, to *do* anything, so as to deserve the name of a Mind?

To me, I confess, this is impossible. Here is the difficulty. The agency, the possession of which by consciousness is to turn consciousness into a concrete mind, has to be found in consciousness *qua* consciousness, and not in a subject having (but not being) consciousness. But the consciousness is intermittent, has intervals in which it is non-existent. How comes it to revive after an interval of non-existence, if the agency belongs to it, and not it to the agency?

Mr. Bosanquet's answer is, that the question is solved by "keeping to the analogy of a *thing*" dropping, I suppose, the inconvenient consideration of consciousness being "a series in time." Now we know what is meant by consciousness being a "thing." It means that "totality of ideas and feelings, which is the most concrete of all syntheses," and which "is to its attributes precisely as the Tower of London is to its attributes." The revival of consciousness after an interval of non-existence is accounted for by forgetting its character of intermittence in time, and assuming its analogy to things in space, on the ground of its being a totality. But the question shelved for the moment must recur again, with regard to the totality. How does the totality of ideas and feelings hold together so as to be a totality? This question is not answered at all.

Let us look at the totality of feelings and ideas a little more closely. It is a totality, by far the larger part of which consists of feelings or ideas which, at any given moment, have ceased to exist as experienced originally, and which are known only as reproductions in memory or imagination. This fact clearly points to some permanent agency which reproduces them in memory, some agency which is not fleeting as all states of consciousness are, some agency, therefore, which is not itself consciousness.

Mr. Bosanquet, on the contrary, finds this agency in consciousness itself, not indeed in what he calls abstract consciousness, but in the totality of its states. But then the fact that they form in a certain sense a totality is the very fact to be explained. The question here is—*How it comes to be so?* How does consciousness cohere as a totality, on the analogy of a *thing*? The question is just as difficult as the other,—how it comes to revive after intervals of extinction?

Moreover, what is included in the totality? Is *future* consciousness included in it? If so, it does not now exist as a totality. And if its power of holding together resides in it because it is a totality,

it resides in what does not exist. Or is *past* consciousness included in it? But this has ceased to exist. If this is included in it, its totality has ceased to exist. If neither past nor future consciousness is included, then the totality of consciousness is reduced to the moment actually present, which is no totality at all. So far from resembling the Tower of London and its attributes, it is rather to be compared to a spark from a sky-rocket.

One more remark in conclusion, relating both to Mr. Ritchie's and to Mr. Bosanquet's theories. Mr. Ritchie refuses to conceive consciousness apart from the Ego, Mr. Bosanquet apart from Mind. The Ego with one, and Mind with the other, is not conceived as a separable condition, but as an inseparable part of consciousness. This being so, it is difficult to imagine what can possibly be excluded from consciousness. Consciousness-ego and consciousness-mind must equally be conceived as being *νάντα τὰ ψηφίματα*. Or, as Mr. Bosanquet puts it, what we commonly call "things" are abstractions from the concrete synthesis of feelings and ideas which is his mind. If this is a correct account, then I ask, what basis or what room is there for any of the positive sciences, which profess to deal with a world external to the mind, and governed by physical, not psychical, laws?

The most remarkable fact about Mr. Alexander's paper is, that while he believes himself to be "in essential agreement with Mr. Bosanquet" he entirely surrenders Mr. Bosanquet's form of idealism, which, as we have seen, consists in holding that "things" are abstractions from the great concrete synthesis, or totality, of his feelings and ideas. Mr. Alexander, on the contrary, holds "that the mind is a thing in precisely the same sense as all other things," that is, not the whole from which things are abstractions, but one thing among other things.

He rejects the idea that consciousness is an attribute of the brain, and holds that the various kinds of consciousness are attributes of the "totality of consciousness unified under the name of mind." Thus it seems that the brain with its attributes is one thing, and the totality of consciousness of which the various kinds of consciousness are attributes is another thing.

He says farther, that "a mere parallelism of brain and mind seems to him fictitious." One of them changes into the other. "When the brain becomes as we say conscious, it is brain no longer, but is consciousness itself." The brain is thus changed into consciousness. We naturally ask whether consciousness is ever changed back into brain? Here Mr. Alexander flinches. He does not say that consciousness *becomes* brain, but merely that consciousness *is* brain

"when considered in its merely physical behaviour." This is a very different thing. Mr. Alexander has the courage of his opinions up to the point of making the astounding assertion that brain, when conscious, ceases to be brain, and is changed into consciousness, but that courage fails him when he comes to the further point of saying that consciousness ever ceases to be consciousness and is changed into brain. At this point he takes refuge in saying that consciousness is brain, but only when considered in its merely physical behaviour. *By whom* considered—is not specified. And which of the two is it, when no one happens to be considering it?

To say it *is* brain instead of it *becomes* brain is to shift the question to quite different ground—from brain as condition and conditionate of consciousness to brain as the object of consciousness, *i.e.*, of the idea of brain. The idea of brain is the only state of consciousness of which it is in the least plausible to say that it *is* brain in any sense at all. But it was not the idea of brain which Mr. Alexander was speaking of when he said that brain, when conscious, was no longer brain consciousness. The theory breaks down in spite of all the aid derived from its ambiguity.

The instance which Mr. Alexander gives to illustrate this singular one-sided transformation is instructive for us, though unfortunate for himself. "Light," he says, "may be considered physically as waves of ether, but is itself light." Now it is true that the same word *light* is sometimes used for the waves of ether and sometimes for the sensation produced by them; but the sameness of the word does not show that the waves of ether and the sensation produced by them are one and the same thing. The sensation of light cannot produce waves of ether, neither can we produce waves of ether by considering light in its merely physical behaviour. Light, the sensation, has no physical behaviour. The waves of ether have. Mr. Alexander identifies the sensation, light, with its condition, waves of ether.

When Mr. Alexander admits "that consciousness depends on physical conditions," we must understand him to make a mental reservation, namely, provided those conditions are identical with itself, or are itself in another form, a form produced by its considering itself physical. When consciousness can consider itself physical, we may entertain Mr. Alexander's theory. But this is an impossibility; consciousness can consider its conditions to be physical, but not itself.

I must now briefly notice Mr. Alexander's reply to myself on the subject of agency. He takes a falling brickbat as his instance of an agent, which I quite agree to. But then he says that "if mind were

nothing but a complex of conscious states, it would be an agent in exactly the same sense." This I entirely deny. Let us take the idea of a falling brickbat as our instance of a complex of conscious states. The falling brickbat has certain physical consequences. What consequences of *any kind* has the idea of a falling brickbat? None whatever. First, it has no physical consequences; it does not break what it is supposed to fall upon. Secondly, it has no consequences in consciousness, for the ideas or states of consciousness which follow it are due to the continuance of that action of the mind or brain, to which it is due itself; and this action and its continuance are now, by the words, "*nothing but a complex of conscious states,*" excluded from the action, if any, of the idea as such a complex. I affirm, then, that there is no evidence to show that the idea alone, i.e., as distinguished from the mind or brain which has it, has any consequences corresponding to those which the brickbat has, and in virtue of which it is called an agent. If we attribute consequences to the idea of the brickbat, it can only be by tacitly taking back the distinction which we have drawn between the idea and its conditions in the mind or brain.

I am quite ready to yield to proof, if any can be given, that an idea as such has consequences of its own; but then it must be proof relating strictly to the idea as such, and not as identified with its own conditions. No such proof is given by Mr. Alexander. That this distinction, between an idea and its conditions or generally between consciousness and its conditions, should be observed in discussing questions like the present, is the sum and substance of my contention. All the idealistic theories which have been broached this evening seem to me to rest upon ignoring the distinction and confusing its terms.

Mr. Stout contrasts psychology with metaphysics, and gives an account of the latter which harmonises entirely with what is held in common by Mr. Ritchie and Mr. Bosanquet with regard to consciousness.

His paper proves that, *on this view of metaphysics*, no metaphysician can be a psychologist, and no psychologist a metaphysician.

The psychologist, being a conscious person, may legitimately assume that unconscious mental processes really exist; but the metaphysician (who is also presumably a conscious person) is not allowed to assume the existence of anything unconscious. "For Metaphysics, consciousness is the Alpha and the Omega, the beginning and the end, through which and for which all things are." This is Mr. Stout's concluding sentence.

Mr. Stout thus carries to the mark the conclusion which I drew

from Mr. Ritchie's and Mr. Bosanquet's views, and shows that, on those views, which are identical with his own, psychology and metaphysic are hopelessly at variance.

But Mr. Stout's paper, by thus putting the two incompatibles in presence and confronting them with one another, supplies the means of restoring the harmony between them. I mean, that we can trace in his paper the precise confusion which causes them to appear incompatible.

Not for the psychologist alone, and not for the metaphysician alone, but for every man, everywhere and always, Existence to be thought of at all must be thought of in consciousness, for thinking is having consciousness. He who thinks has consciousness. But this does not imply that the existence of which a man thinks has consciousness also. He must have a consciousness *in him* in order to think of it (and in this sense consciousness is all-embracing, the Alpha and Omega, &c.)—but existence need not have consciousness *in it*, in order to be thought of.

Now Mr. Stont sees this and admits it in the case of the psychologist, but denies it in the case of the metaphysician. In order to deny it in the case of the metaphysician, some theory like those of Mr. Ritchie and Mr. Bosanquet—that is, some *Idealistic* theory—would be requisite. Then, indeed, if Idealism were to be held true, we might have psychologist and metaphysician hopelessly and for ever at variance.

THE SCOPE AND METHOD OF PSYCHOLOGY.

By G. F. STOUT, M.A., Fellow of St. John's College, Cambridge.

THE sciences may be divided into two classes, according as they lay down canons of criticism or investigate matter of fact. Under the former head are to be placed certain of the moral sciences, e.g., ethics, æsthetics, and logic. Ethics lays down canons of conduct, æsthetics aims at establishing canons of taste, and logic prescribes canons of reasoning. Among the sciences which inquire into matter of fact are to be ranked mathematics and all the physical sciences, together with two moral sciences—theory of knowledge and psychology. Psychology, like chemistry or physics, is directly concerned with what is; it does not, like ethics or logic, treat of what ought to be. It is within its province to investigate certain questions of fact; it is totally outside its province to pass sentence of approval or disapproval.

It may describe a process of reasoning and fix the laws according to which it takes place, but it cannot criticise the reasoning when completed, and pronounce it valid or invalid. Similarly it may investigate the causes of human conduct, but it has nothing whatever to do with the question whether such conduct is right or wrong. This characteristic of psychology, the fact that it investigates what is, not what ought to be, may be expressed by saying that it is a natural not a normative science.

But though psychology is a natural, it is not a physical science. This point will be best brought out by considering the attempts which have been made to maintain an opposite doctrine. It is urged by certain physiologists that the only way of explaining the phenomena of consciousness is by connecting them with the physical phenomena of the brain and nervous system. From this standpoint the science of mind is regarded as occupying an analogous position to the sciences of sound, light, heat, and electricity. As sound or light are susceptible of scientific treatment only when they are considered as conditioned by certain modes of motion, so it is held that consciousness in general can only be successfully investigated when neural processes are made to play the same part in psychology as do the vibrations of air and of ether in acoustics and optics. Now, I should be quite prepared to accept this position if I were convinced that the supposed analogy between the cases of sound or light, and that of consciousness, was a just one. But, it seems to me, that there is an essential distinction. The phenomena of sound as given to the ear, or of colour as given to the eye, are not themselves capable of supplying subject matter for a physical science, because they are not connected *inter se* according to a fixed and systematic order. The uniformities, or approaches to uniformity, which are susceptible of being formulated in terms of colour, or of sound as such, are inadequate to form the basis of a system of interdependent truths. The same fact is expressed, though in a misleading way, when sounds, colours, &c., are said to be subjective in contradistinction from their objective mechanical conditions, or when they are called secondary as opposed to primary qualities. In any case, it is implied that there neither is nor can be a science of light as seen, or of sound as heard, or of heat as felt. If in like manner mental processes were incapable of being reduced to a definite order of co-existence and sequence *inter se*, there would be no such thing as psychology. The distinctive aim of the psychologist is to investigate mental events themselves, not their mechanical accompaniments or antecedents. If the course of mental events is not regulated by discoverable uniformities capable of being interconnected so as to form a coherent system, the psychologist has nothing to do. It is incorrect to say that on this assumption

tion his science becomes absorbed in physiology. It does not become absorbed; it simply ceases to exist in any form whatever.

The distinctive position of psychology will appear still more clearly from the following consideration. The several physical sciences may be regarded as fragmentary portions of a single total science, having for its object the material world considered as a single continuous mechanical system. The lines of demarcation which divide them are due to our ignorance. With the attainment of perfect knowledge these lines would disappear, the more specialised sciences being absorbed in the less specialised by reduction of the more complex processes to the more elementary. Thus a perfected biology would consist in the application of the general principles of physics and chemistry to a special case of peculiar complexity—that of vital phenomena. Now, no science of matter stands to psychology in a relation analogous to that in which chemistry and physics stand to biology, or *vice versa*. Mental processes cannot be explained as special complications of processes which are not mental, nor can they enter into the composition of such processes. In the one continuous science which would result from complete knowledge of the material world there would be nowhere any place for psychology.

It follows from the above statement that the field which falls under the survey of the physical inquirer is quite distinct from that which forms the province of the psychologist. Nevertheless, the very conception of psychology implies an essential connection between it and physical science. Only by exhibiting the nature of their connection can their antitheses be brought into the clearest light. They are essentially connected, inasmuch as psychology logically presupposes the existence of physical knowledge as its point of departure. For the same reason they are essentially distinct. Whereas physical science consists in knowledge of the material world, the primary problem of psychology is to investigate how such knowledge comes into being. On the one hand, apart from physical knowledge, psychology could not exist, because it would be deprived of its indispensable subject matter. On the other hand, physical science might conceivably be carried to a high degree of completeness, apart from any implied advance in psychology, because we might have perfect knowledge of the material world and yet remain ignorant of the process through which such knowledge had arisen. The law of gravitation, for example, is a law of matter and an object of physical science. Knowledge of this law by no means involves knowledge of the laws of the process through which Newton discovered it; these are laws of mind and objects of psychological science.

Psychology investigates the history of consciousness, and this

coincides with the history of the process through which the world comes to be presented in consciousness. It treats of knowledge as something which is subject to time-vicissitude, as something which can be learned or forgotten. When, on the other hand, the nature of knowledge is considered apart from its genesis, it becomes the subject matter, not of psychology, but of metaphysics. It is the province of metaphysics to discover the essential constituents of cognition, apart from which it would not be cognition at all. When knowledge is thus considered in abstraction from its time-vicissitudes, it becomes practically undistinguishable from the thing known *qua* known. Thus in Kantian language we may say indifferently either that metaphysics investigates the "conditions of possible experience," or that it investigates the nature of an "object in general." In order to perform its function, it must convert the implicit pre-suppositions of science into explicit objects of science, thus raising the human mind, as it were, to a higher platform from which to regard the world. The aim of psychology is, on the contrary, purely retrospective. The psychologist does not attempt to climb higher; instead of doing so, he turns to look back upon the scenes which he has already passed through. Starting from his existing standpoint, he does not attempt to transcend it; he seeks rather to go back upon the traces of experience, and to ascertain how his existing standpoint has arisen. Although psychology is thus distinct from theory of knowledge, it is nevertheless intimately connected with it, and to a large extent dependent on it. Theory of knowledge treats of the product, psychology of the process through which this product comes into being. Now, we cannot be sure that we have correctly ascertained what the process is unless we can show that it must result in the actual product, and in no other. Therefore the psychologist, in exhibiting the steps through which knowledge in some given phase of its progress has come into being, must pre-suppose a correct analysis of such knowledge as it exists. He must refer to his own standpoint, his own view of the world, as the goal of the development which he is tracing. In this way psychology depends on metaphysics, and therefore indirectly on physical science and common sense, as forming the subject-matter of metaphysics.

The outcome of our inquiries is that psychology is distinguished from the physical sciences inasmuch as their aim is to know the material world, whereas it deals with the question how this knowledge arises.

Also that it is distinguished from metaphysics inasmuch as it is concerned with the genesis of cognition from a historical point of view, not with the analysis of the finished product from a critical point of view.

The foregoing account of the province of psychology is similar to and is in fact based upon Mr. Ward's. There are, however, certain points of disagreement between his view and mine, which are worth noticing. Mr. Ward holds it to be clumsy and confusing to use the terms material and mental, as if they stood for two separate classes of phenomena. The difference, according to him, is rather between two points of view in which the same class of objects may be regarded. When we lay emphasis on the fact that a material phenomenon is a phenomenon, *i.e.*, appears to some one, exists for some conscious mind, we are in the region of psychology, when we abstract from the fact that a material phenomenon is a phenomenon, when we neglect all that is implied in its appearance to some one, in its presentation to a conscious mind, we are in the region of physical science. Now I am unable to accept this distinction as adequately defining the relation between physical science and psychology. It seems to me to involve confusion between psychology and metaphysics, in which also, as it is treated for instance by Kant, the fact of presentation is emphasised and its conditions assigned. Probably Mr. Ward would seek to clear up this difficulty by distinguishing between universal and individual consciousness. He would, I suppose, say that in theory of cognition we exclude from consideration those conditions of presentation which depend on the fact that the subject to which presentation is made is an individual, whereas in psychology it is precisely to these conditions that we confine ourselves. This explanation appears to me satisfactory as far as regards the relative position of psychology and metaphysics; but if we accept it, we must, I think, reject Mr. Ward's doctrine, that the difference between physical science and psychology is a difference of standpoint only. Let us examine more closely the distinction here laid down between consciousness in general and individual consciousness. Psychology, if it is to be a science at all, must generalise; it must treat of facts and laws which are common to all minds. As Mr. Ward himself tells us, it is not a biography in any sense, still less a biography dealing with idiosyncrasies. In what sense, then, is it true that the standpoint of psychology is individualistic? My answer to this question, an answer quite in unison, I think, with Mr. Ward's deliverances, is that psychology treats not of this or that individual, but, so to speak, of individuality itself and all that it implies. For individual subjects have at least thus much in common, that all are individual.

We are next confronted by the problem of fixing the precise import of the word individuality as here employed, and this problem cannot, I think, be satisfactorily solved without having recourse to the result of our previous investigation, according to which psychology

treats neither of the world nor of our knowledge of it, but of the steps by which we come to know it. There is room for individual differences between mind and mind only in the process through which cognition arises, not in the finished product.

Men, so far as they already know, meet on common ground; the modes in which they acquire knowledge may be endlessly diverse. For the acquisition as something that takes place in time, is conditioned by interest, attention, desire, and so forth; and these may vary indefinitely both in amount and direction in the case of different persons, or of the same person at different times. We are thus led back to our original statement.

In theory of cognition we investigate the essential constituents to knowledge as a finished product, in psychology we discuss the process through which this product arises, and have in so doing to consider many conditions not immanent as factors in the resulting cognition.

Let us now, returning to the original question, consider the statement that the difference between Psychology and Physical Science is a difference of standpoint only. We may, perhaps, grant that in passing from physical science to theory of knowledge we merely change our point of view, considering in the former case those characters of the object which belong to it because it is this or that special kind of object, considering in the latter case those characters which attach to it, just because it is an object of science at all. When, however, we turn to psychology, our position seems altered. Here we have to treat not of an object as already known, but of the way in which it comes to be known. This seems to me to involve a change not of standpoint only, but of subject matter also. While a thing is coming into being, it does not yet exist; therefore in investigating its origin we are not investigating it. We are not even investigating part of it; for our interest at any moment has reference not to what is already there, but to the mode in which new elements are being added. In describing the building of a house we are not describing the house itself, except incidentally; we are rather concerned with the action of the builder, and so forth. So in psychology we treat of the facts of attention, feeling, desire, &c., which are classes of phenomena entirely distinct from any part of the subject matter of physical science or metaphysics. I propose to define psychology as the science of the laws which regulate the development of consciousness in time; in other words, the science of the processes through which the world comes to be presented in consciousness. I pass now from the question of definition to that of method.

II. METHOD OF PSYCHOLOGY.

Psychology, like physical science, aims at the establishment of continuity among observed facts, by interpolating between them as intermediate links, trains of events which elude observation. The question of method has accordingly two divisions. We have to treat (1) of the method of collecting data; and (2) of the method of colligating them by means of hypotheses.

(1.) THE DATA OF PSYCHOLOGY.

A. Products of Past Process.

We defined psychology as the science of the development of consciousness. Now all sciences of development depend on two classes of data, the first referring to the successive phases of the product, which is evolved, the second referring to the nature and laws of the process through which it passes from one phase into another. Development is accumulated modification; it involves the persistence of the product of past process as the basis of succeeding change. It is only through these persistent effects that we can take cognisance of bygone processes which lie beyond the reach of observation or memory. Hence, if we wish to trace the course of evolution, it is indispensably necessary to note the series of successive phases, through which the final outcome is attained. The observation of the nature and arrangement of geological strata supplies indispensable material for tracing the history of the earth. And similarly, in order to study mental evolution, we must examine the series of successive stages, which intervene between the most rudimentary consciousness and our own developed standpoint. There are psychological strata as well as geological strata. Nor is it difficult to discover these deposits of mental process.

Whatever any one wills, desires, perceives, conceives, or imagines, is a datum of the kind required. From this point of view we may say with Mr. Ward, that the whole choir of heaven and furniture of earth, so far as they are known, are data for psychology. Similarly, all works of imagination, e.g., the Iliad or Hamlet, or Grimm's fairy tales, and all rules of conduct, e.g., Roman law, the Brahman ritual, the Kantian Ethics. We must, however, carefully note that mere examination of mental products is valueless for psychology, except in so far as it helps us to trace mental process. This purpose is best served when we can arrange the products as parts of a historical

series, in which each may be treated as the goal of preceding, and the starting point of succeeding, development. Thus we may profitably compare the views of the world, as it presented itself to Why Why in Mr. Andrew Lang's tale, to Homer, to Socrates, and to Darwin respectively.

Again, apart from any reference to historical order, we may compare the same object as it is presented in various phases of completeness to different minds, or to the same mind under different conditions. This course yields important results, when we can assign definite circumstances on which the variation depends. Thus, by comparing space, as it exists for persons possessed both of sight and touch, with space as it exists for the blind, we may obtain valuable data for determining the part played by visual experience in the development of this perception. Similarly, it is useful to examine the difference between an after image and an actual percept, or between the appearance of dissimilar perspectives stereoscopically combined, and that presented by flat surfaces generally. In all these cases, what we observe and compare are not psychological processes but their products. These do not constitute a special subject matter peculiar to psychology. They are, on the contrary, included among the objects of the other sciences, and of ordinary knowledge. The psychologist only makes a selection among them and arranges them for a special purpose. Another distinctive feature of his method is that he takes note only of what men believe, disregarding the truth or falsehood of their belief. He is concerned with appearance only. For him the crude superstitions of Australian aborigines have as much interest and value as the developed and accurate knowledge of a Newton or a Faraday. It is not the world as it ought to appear, but the world as it does appear, which is the outcome of psychological development; and this latter is constituted as much by illusions and delusions as by correct perceptions and beliefs.

B.—*Observation of Mental Processes and of their External Signs.*

Turning now to the 2nd class of psychological data, we have to inquire into the means by which we are able to observe the nature and the laws of the process through which the mental product passes from one stage to another.

There are three sources from which we obtain facts of this kind, two ultimate and independent, the other secondary and dependent. The first is introspection, or the perception of what takes place within our own mind. The second is the remembrance of past psycholo-

gical processes, which have taken place within our own mind. This method may be conveniently termed retrospection. The third source, a derivative and dependent, but immensely important one, is to be found in observation of the outward signs of what passes in the minds of others. Under this last head I do not include the communication from one man to another of physical or even of psychological knowledge already acquired.

Signs, so far as they mediate such communication, indicate objects already presented. They stand for mental products, not for mental processes. It is characteristic of them that their significance for the person to whom the communication is made, depends entirely on the assumption that they are understood in the same sense by the person who makes it. This kind of intercourse is of the greatest service to the introspective psychologist; it enables him to check his results, by comparing them with those of others, and so to ascertain whether they are due to idiosyncracy, perhaps to malobservation, or, on the contrary, are valid for all consciousness in certain phases of development. In physical science an observation made by one person and unconfirmed by others is regarded as valueless. I have no hesitation in saying that in psychology we ought to be no less rigid. No general principle can be legitimately accepted on the evidence of introspection or retrospection alone, unless it has been corroborated by a consensus of experts. But, however valuable this procedure may be to the psychologist, it is not a distinct method of inquiry, it is only the intercommunication of knowledge already acquired by other means.

If our third method is really a separate source of knowledge, it must consist in the observation of phenomena which betoken the existence of mental processes, quite independently of their being perceived or unperceived by the mind within which they take place. Thus we may interpret a given line of conduct as indicating certain motives, although we believe the agent himself to be unaware of how he is actuated. Similarly, we may regard a blush as evidence of shame, or paleness as one of anger, although the person observed fails himself to notice either the emotions or their outward manifestations. In these cases we use a third method, distinct from either introspection or retrospection. It is, however, as stated above, a derivative method which presupposes the other two, although they do not presuppose it.

There is no such thing as direct observation of other minds; all that is immediately perceptible consists of sensible signs and tokens of inward events, and these sensible signs and tokens are interpretable only through knowledge obtained by introspection or retrospection.

It is fundamentally impossible for any man to penetrate directly into the consciousness of his fellow-man, to say nothing of beings who are not men. For each of us the existence of minds distinct from our own is a matter of inference. It is not an observed fact, but only a way of interpreting observed facts. All depends on accurate resolution of our own complex consciousness into its constituents, and on recompounding these in such a way and in such proportions as to explain the nature and order of the signs which indicate to us the mental processes of others. This applies both to our every-day experience and to advanced scientific research. The only difference is, that in the latter case the inference from sign to thing signified is much more indirect, difficult, and dubious.

The physiologist, even if he knew all about the nervous system, down to the minutest details of structure and function, would be as powerless as ever to gain any direct insight into the corresponding mental processes. The attempt to do so would be exactly like an attempt to learn the meaning of a book in an unknown language merely by studying the shape, size, and arrangement of the letters composing it. Just as the interpretation of the written characters is distinct from their structure as marks on paper or parchment, and must be learned from other sources, so the interpretation of physiological data is distinct from bare knowledge of these data, and pre-supposes another group of facts otherwise revealed.

Not only does this indirect knowledge of the psychical phenomena of other minds supplement and extend the direct knowledge gained by self-examination; it also extends the scope and increases the precision of introspection. Our power to discriminate the constituents of a complex phenomenon depends upon the degree in which we have been used to consider them each singly, in isolation from the complex in which they are presented.

Now, in constructing representations of the mental life of others from data supplied by our own, we are compelled to disengage the component parts of our experience from the context in which they have previously been presented, and to combine them afresh in a way determined by the mode of combination of the physical phenomena which we are interpreting as outward signs of inward process in others. Hence, in future introspection, we shall be able to detect these components where they would otherwise have escaped our notice, just as one who has made a machine possesses, on that account, a better eye for machinery, or as a portrait painter has a better eye for faces than one who has never been compelled to attend separately to the individual features.

(2.)—HYPOTHESES OF PSYCHOLOGY.

Having now passed in review the chief sources of psychological data, we must next consider the nature of the hypotheses by means of which these data are interconnected so as to form a single coherent system. Just as in physical science we account for observed facts by assuming unobserved conditions, so, in mental science, we must transcend experience in order to explain experience. Only a part of the factors which determine mental processes are definitely recognisable in consciousness. The rest, even if they are not unconscious, are at least undiscriminated. Hence, all psychologists have explicitly or implicitly recognised the necessity of going beyond immediately given phenomena, in order to frame some kind of explanatory hypotheses.

In doing so they have adopted one or other of three courses. Either (α) they treat class concepts of mental phenomena as if they were real forces producing these phenomena, or (β) they have endeavoured to apply the assumptions of certain physiologists to the explanation of conscious processes, or (γ) they have assumed unconscious or subconscious factors, which operate according to the same laws as definitely discriminated presentations, viewed purely from the point of view in which their mechanical relations are alone considered and their presented content disregarded.

Of these three methods, the first needs not detain us long. The faculty psychology, as it is called, has now a purely historical interest. Its origin and excuse is to be found in what we may term the natural fallacies of introspection. Physical phenomena wait to be examined and compared in detail. The objects of inner perception are, on the contrary, shadowy and evanescent; they are scarcely capable of being fixed for a moment in the same state, and are destroyed in the very effort to grasp them. Hence they can only be observed in transitory glimpses, in which recognition is mediated by the most obvious features which they possess in common. The result is a kind of involuntary generalisation, giving rise to class concepts, useless for scientific purposes, because from their very nature they cannot be applied to specific cases. Hence in the older psychologies, which are almost exclusively based on introspection, we everywhere find broad and sweeping divisions, but nowhere any definite attempt to give detailed explanations of particular phenomena. The only way of giving to generalisations of this kind even the semblance of direct utility was to falsify their nature, and the most obvious and convenient kind of falsification was to treat them as if they were forces instead of mere class concepts. Now, the human mind has always been prone to invest abstractions with an

illusive reality. In introspective psychology this tendency is peculiarly strong, because the plurality of particular instances in which the class concepts are exemplified are, as regards their specialising and details, so fugitive and indistinct.

On these grounds alone it is easy to understand the nature and origin of the faculty psychology.

It becomes yet easier to do so when we consider how essential the idea of development is to mental science, and how imperfectly it was understood until comparatively recent times. Perhaps Leibnitz's theory of the internal evolution of his monads is the first clear application of the principle. If Locke receives credit for having attacked innate ideas, Leibnitz ought to receive at least as much credit for having attacked innate faculties. He condenses his polemic in the pregnant maxim, "A naked possibility is nothing."

Real explanation assigns definite conditions through which, by the operation of definite laws, definite results must arise. Where we cannot thus resolve a fact into its factors, such words as potentiality, faculty, susceptibility, are mere masks for our ignorance, and ought to be acknowledged as such. Now, the faculty psychologists were in the habit of treating a naked possibility as if it were something, as if, indeed, it were identical with its own realisation, hidden away in some mysterious fashion. They ascribed to the undeveloped consciousness in the form of dormant powers the same activities which they discovered by introspection in themselves. It never seems to have occurred to them that the powers of understanding, willing, imaginary, &c., instead of existing at the outset, might have arisen as the result of a long series of changes, each of which paved the way for the next.

The fundamental error of the faculty psychologist was too exclusive reliance on introspection, as if it immediately supplied the explanation of the facts which it revealed, instead of being merely a point of departure for the framing of hypotheses which can be otherwise tested. Just as the geologist applies his knowledge of the changes which actually take place at the present time, in order, hypothetically, to reconstruct the history of the earth in the past, so the psychologist must use his direct knowledge of mental processes as far as he can now perceive them, in order, hypothetically, to reconstruct the past history of consciousness, both in the individual and in the race; and just as the geologist is guided by a definite succession of strata, which require definite series of changes to account for the transition between them, so the psychologist ought to be guided by a definite succession of forms successively assumed by the products of mental process, which also require definite series of changes to account for the transition between them.

The second method of explanation is that in which mental processes are referred, not to mental, but to physiological conditions. I shall discuss later on how, and how far, this procedure is capable of a legitimate and profitable application. What requires to be considered at this point is the claim of physiology to be the only possible basis of psychological theory. The ground on which this claim is founded is most distinctly and intelligibly formulated by our President Mr. Shadsworth Hodgson. He lays down the general principle that explanation of how things come to be as distinguished from analyses of what they are must be expressed in terms of matter, because matter, being the only known real agent, is the only real condition of genesis. As against this view I would urge, in the first place, that even if material agency were the only real condition of mental occurrences it would not follow that all psychological explanation must be physiological. If certain uniformities can be observed or inferred in the course of the mental events themselves, there is no valid reason why he should not investigate them for their own sake, even though their real ground should remain for ever hidden. Uniformities of co-existence and sequence on the physiological side may find an expression more or less complete on the mental side also; and they may therefore be independently studied from this side. Nay, they not only may, but they must be so studied, if they are to be investigated at all.

I affirm this confidently on the ground that there is no direct means of tracing the connection between a mental fact and the corresponding physiological fact. There is a gulf fixed between the physical and the psychical of such a nature that it is impossible coincidentally to observe an event of the one kind and an event of the other kind, so as to apprehend the relation between them. Instead of immediate observation, we have to use a very indirect and insecure process of inference, which, depending as it does on a comparison of the mental phenomena with the physiological, pre-supposes an independent knowledge of both sides. For these reasons I maintain that even if matter were the only real agent, psychology would nevertheless remain a field of inquiry separate and distinct from that covered by the investigation of the material organism. In the next place, I dispute the statement that matter is an agent in any sense in which mind is not so. Since I cannot discover any argument on which Mr. Hodgson bases this teaching, I must assume that he considers it self-evident. It is therefore pertinent to notice that a large proportion of mankind seem to have held exactly the opposite view. Mr. Hodgson, finding that mental events occur which are not immediately traceable to other mental events, assumes that they are due to material agency. Similarly, men who lived before the development

of physical science, and those who at the present day live outside the sphere of its influence, being continually confronted by material changes not easily traceable to mechanical antecedents, assume that they are due to spiritual agency. The sun moves without being pushed; therefore the sun is alive. How can Mr. Hodgson show that he has any better guarantee for his position than the untutored Indian has for his? Physical science has shown the thoroughgoing and continuous inter-connection of all material events as parts of a single mechanical system. There is nowhere any room within the mechanical series for the inter-position of conditions which are not mechanical. Thus the crude animism of the savage is no longer possible to most of us, but for the same reason the refined materialism of Mr. Hodgson ought to be impossible also. If the continuity of the mechanical process debars us from regarding a movement as due to a volition, it must in like manner debar us from regarding a volition as due to a movement, even of brain particles. So far as we have come to believe in matter as the only real agent in material processes, we seem to owe this belief to our growing insight into the continuity of these processes as parts of a single system; but when we come to consider the connection between physiological and mental events, we find a marked breach of continuity. No analysis can discover in the psychological fact any traces of its supposed physical factor.

Again, so far is Mr. Hodgson's position from being self-evident, that even at the present day we find among scientific men unmistakable survivals of the primitive animism.

Haeckel, for instance, says that it is impossible to account for chemical processes unless material atoms are regarded as feeling pleasure and pain. Von Hartmann expresses himself in a quite similar manner. What argument can Mr. Hodgson use in defence of his view which Haeckel and Von Hartmann cannot use in defence of theirs? They say, virtually, that the agency which determines physical events is, at least in part, mental—he says that the agency which determines mental events is wholly physical. The two positions seem to be equally tenable and equally untenable. Indeed, there are reasons which make me prefer the crude hylozoism of Haeckel to the theory which makes matter the only real agent. I am even disposed to deny that matter is in any special sense a real agent at all.

The denial of agency to mind appears to me to rest on a confusion between two points of view in which a presentation may be regarded. It may be considered either as intrinsically having a certain qualitative content, or as mechanically conditioning change in the total field consciousness, of which it forms a part. Now it is in the former

way, not in the latter, that we usually regard presentations. From this standpoint our attention is fixed on resemblances or differences, or other relations constitutive of the presented content, or on the reference of this content to objects which it is in some way supposed to represent. In either case there appears to be an entire absence of anything that can be called agency in the presentations considered. Variations in our idea of a thing do not alter the thing itself, and resemblance or difference is not in any sense interaction. Now it is because we habitually regard presentation from this point of view that some persons feel great difficulty in grasping the conception of a psychological mechanism. None the less, this conception is, as I maintain, a perfectly legitimate one.

Presentations do, in point of fact, act and re-act on each other in manifold ways. They compete with each other, conflict with each other, combine with each other, fuse with each other, support each other, and pluralise each other. They compete in so far as the growing distinctness of any one involves *ceteris paribus* the growing obscurity of others. *Pluribus intentus minor est ad singula sensus.* This kind of interaction is capable, to a certain extent, of quantitative formulation. When A waxes and B in consequence wanes in distinctness, it is legitimate to figure the process a transfer of something from B to A. In fact, we are naturally and inevitably driven to regard it in this light. Thus the common mode of expressing what takes place, is to say that attention in being concentrated on B is withdrawn from A.

The competition of presentations must be distinguished from their conflict. Competition arises purely from limitation in the total quantity of attention. Conflict depends on the special antagonism of certain presentations, and this antagonism depends on two conditions: 1. On the tendency of like presentation to coalesce, so as to form one and the same presentation; 2. On the impossibility of two contrary contents being distinctly co-presented in the same relation to a third. Thus when A B C tends to fuse with A B D, C and D being contrary to each other and similarly related to A B, then C tends to extrude D from its place in the complex A B D; and D similarly tends to extrude C from its place in the complex A B C. This kind of process takes place when we are urged by various reasons to attach incompatible predicates to the same subject, or when various motives impel us to incompatible actions. It may in the strictest sense be called conflict. Like the process of competition, it is capable of quantitative formulation. The more attention is fixed on both C and D, the more lasting and intense is the contest between them. By this I mean: (1) That a greater feeling of uneasiness is produced by the mental tension; (2) That there is a kind of oscillation

between C and D, first one then the other rising into distinct consciousness, with perhaps intervals of general confusion, in which neither of them are distinct.

It would be useless to discuss the processes of redintegration, pluralisation, &c. Enough has been said to illustrate what I mean by the mechanical relation of presentations. To prevent misconception, I should like to add, that I fully admit this mechanical point of view is abstract and one-sided; all that I contend for is that the abstraction is legitimate.

We are now in a position to examine the third kind of psychological hypothesis; which posits undiscriminated determinants of mental process, operating in the same way as discriminated presentations. You will observe that the antithesis on which I here lay stress, is not between conscious and unconscious, but rather between discriminated and undiscriminated mental modifications. It belongs to my plan to show that there are undistinguished factors in mental process which act like distinct presentations; neglecting the further question, whether these undiscriminated factors are really unconscious or not, that is to say, whether they have no presented content at all, or else a content which is presented without being distinguished from the whole of which it forms a part. In any case, the antithesis between a discriminated and an undiscriminated presentation is an immensely important one. There must be a radical difference in quality between a content which is separately discernible in consciousness, and one which is not so.

One example of the working of undiscriminated mental factors I have already covertly introduced in discussing the nature of conflict. When C conflicts with D, then, *ex hypothesi*, only one of them at a time can be distinctly co-presented in the same relation to A.B. Thus it belongs to the very nature of this kind of interaction that at least one of the interacting factors should be undiscriminated if not unconscious. But the class of cases on which I rely most confidently are those connected with the processes of understanding and feeling interest. To understand a thing is to have a sense of its import, i.e., of its connexion with other things. Interest may be with approximate accuracy described as understanding, plus the feeling which is consequent on it, or concomitant with it. Now in order to have this sense of the relations of a presented object, by which its place is fixed in the general context of experience, it is by no means necessary that these relations should appear in distinct consciousness. Indeed, it is not necessary that we should definitely recognise anything except the presentation itself, which we understand and feel interest in. Nay, in order that we may begin to understand a thing and feel interest in it, it is not even necessary it itself should be a discriminated

presentation. On the contrary, we must, in many cases, assume that it is not so. I can best explain my meaning by examples. I fail to attend to a lecture, at which I am present, because my mind is pre-occupied by some other subject. Now suppose the speaker happens to mention a name, which is very interesting to me because of its associations. Although I had not been aware of a single word which had been previously uttered, this name, like a talisman, rouses me from my absorption and rises into full consciousness. And yet this word, considered merely as a sound, may not be more intense than those which preceded it. The only advantage possessed by it is its greater power to set in motion trains of reproduction. Now here there are two points to be noted: (1) That it must act on pre-existing mental factors, not after, but before, it is itself in distinct consciousness. Its interaction with them is the cause, not the consequence, of its being discriminated. (2) These mental factors which it acts on and which re-act on it are, to begin with, undiscriminated from it and from each other. Nay, they may never come to be discriminated except in part. Yet they collectively give rise to my sense of the significance attaching to the given presentation and determine the pleasurable or painful interest which it excites. The above case is only one of a multitude which might be adduced. We are constantly exposed to an immense number of sense impressions, only a few of which occasion presentations which appear in distinct consciousness. The preference of one sense impression over another is in a large proportion of instances determined by the interest of the corresponding sensations, arising from their power to revive the residues of bygone experience. Turning now from perception to thought, I shall give an example, which I owe to Theodor Lipps. It is a good one, because it brings out well the analogy between the behaviour of discriminated and undiscriminated mental factors. Our thinking, for the most part, consists of two series of presentations:—

- (1) Of a series of words in more or less distinct consciousness.
- (2) Of the corresponding meanings presented in the vaguest way.

If we had to recall in precise detail the import of each word, we should hardly be able to carry on even the simplest train of thought. We annex, in due grammatical form, some predicate to the name of a person or thing, and we are aware that the predicate properly applies to the subject without being in the least aware how or why it does so. Another time, when we hear a different predicate annexed to the same subject, we instantly recognise that it is unjustified, and that the proposition is therefore wrong. We are aware of all this without explicitly apprehending the meanings of the words employed, and, therefore, without distinguishing the points

in which these meanings harmonise or conflict in the particular connexion into which they are brought. This can only be satisfactorily explained on the assumption that the points of conflict or agreement, although not distinctly recognised, are yet in some form present as factors in the mental process of speaking or hearing. Even if on *à priori* grounds we doubt the truth of this assumption, yet, according to the precedents furnished by the physical sciences, we have a right to make it so long as it yields the best explanation of the psychological facts, *i.e.*, so long as it is the best working hypothesis.

I have now said enough to show how presentations may cease to exist *quâd* presentations, or at least *quâd* discriminated presentations, and yet persist and be identified as components of the psychological mechanism.

(3.)—THE PSYCHOLOGICAL APPLICATION OF PHYSIOLOGICAL AND PHYSICAL THEORY.

An individual mind is not a monad developing entirely from within; its life is not a continuous evolution in which each succeeding phase is merely an outcome of the preceding. On the contrary, it is constantly subject to change which is not purely a continuation of prior process, but which takes the form of determination from without, interfering with the continuity of internal development. This externally initiated change is what we call sensation, and its immediate antecedent, so far as this is definitively ascertainable, consists in physiological process within a material organism, conditioned by corresponding physical process in its environment. Thus, in order to explain how the world comes to be known, we must presuppose that it exists, and that we, from our psychological standpoint, know something about it. We are indeed told by Dr. Bain that it is "a contradiction to suppose that a material world in the first instance detached from perception, and afterwards coming into perception, by operating upon the mind." "The prevailing view," he says, "is that a tree is something in itself apart from all conception; that by its luminous emanations it impresses our mind, and is then perceived; the perception being an effect, and the unperceived tree the cause. But the tree is known only through perception; what it may be anterior to and independent of perception we cannot tell; we can think of it as perceived, but not as unperceived." In reply, I inquire—why should we be forbidden to think of what is perceived by us as unperceived by someone else, or by ourselves in an earlier stage of our history. It would, I grant, be a contradiction to suppose that the undeveloped consciousness knows the material

world as presented to us who are tracing its development. It is legitimate to recognise that we know it ourselves, and to make use of our knowledge. Another possible objection is that in introducing these material antecedents we are giving up the position claimed for psychology as entirely distinct in scope and aim from each and all of the physical sciences. The line of demarcation, which we drew so sharply, seems to become blurred and indistinct. This, however, is an illusion due to a misconception of the way in which we make use of these physical data. No reference to the physical antecedents themselves needs be included in any strictly psychological proposition. We take account of them only in so far as they are indispensable helps in determining the nature and order of changes produced in the mind from without. But this is only a preparatory step, a kind of scaffolding to psychology, no part of the building itself. The psychologist is concerned not with the antecedents of externally initiated changes but with these changes themselves, inasmuch as they modify preceding and determine succeeding mental states. Thus, though these physical facts supply data indispensable to the solution of psychological problems, yet they do not themselves enter into the composition of psychological truths. Up to this point I have spoken only of corporeal antecedents. We have now to consider another set of physical events, which do not precede but accompany mental events in strict parallelism, and which accompany not merely externally initiated changes but all psychological processes without exception. For example, in man, all mental occurrences seem to be inseparably connected with corresponding occurrences and the brain. We have proof of this in the case of the simpler psychological processes, and since what are called higher activities can be shown to be due to complex combination of these simpler processes, we must assume that every mental event is thus connected with a neural event. The connexion, moreover, seems to be immediate, that is to say, no further material changes seems to intervene between what takes place in the brain and what takes place in the mind. Now we cannot treat this relation of brain events and mental events as one of cause and effect, because it is irreconcilable with the unity and continuity of the material world as a mechanical system to suppose interaction between soul and body, and the whole tendency of modern science is to force upon us this view of the material world as one and continuous in its processes. Hence we are compelled to consider those neural occurrences which are immediately connected with mental occurrences, not as antecedent to these, but as concomitant with them. Even those events which we have named the physical antecedents of sensation cannot, properly speaking, be regarded as determining mental change. What

they do determine is brain change inseparably concomitant with mental change. The real causes which give rise to the mental occurrence cannot be definitely ascertained. All we can say of them is that they probably consist in processes, which bear to the physical antecedents of sensation a relation analogous to that which mental phenomena bear to brain phenomena. Be this as it may, it is now widely recognised, and is becoming every day more widely recognised, that all mental occurrences, whether externally or internally initiated, are accompanied by simultaneous, strictly correspondent, and co-variant neural processes.

What then is the value and import for psychological science of these neural accompaniments of mental events. I answer that, from a purely theoretic point of view, psychology is not bound to take any account of them whatever. Facts of mind are partly traceable to prior internal processes and are partly referable, in the sense above explained, to physical antecedents. Similarly, the accompanying neural events are to be accounted for as due to other material occurrences taking place either within the nervous system itself or external to it, without reference to mental phenomena. We might conceivably have a complete knowledge of the nature and conditions of the neural processes, together with complete ignorance on psychological questions, and conversely we might conceivably have a very advanced state of psychological science, and yet remain utterly in the dark respecting what takes place in the central nervous system. Again, we might possess full knowledge both on the physiological and psychological sides without any insight into the correspondence between them sufficiently precise to enable us to connect each definite class of neural events with a corresponding definite class of mental events.

Thus it seems quite conceivable that psychological inquiries might be pursued without reference to the physiological accompaniment of mental processes. We have, in conclusion, to consider whether it is practically convenient to discard data which may be supplied by the physiology of the brain. In order to settle this question we must inquire—(1) under what conditions it is possible to deduce from such physiological data psychological truths of which we have no previous and independent knowledge; (2) how far these conditions are fulfilled in the present state of science, or are likely to be so in the future. We may conveniently symbolise mental states by Roman letters a , b , c , d , and e , and corresponding physiological states by corresponding Greek letters α , β , γ , δ , ϵ , without attaching significance to alphabetical order. The question with which we have primarily to deal may be stated thus:—Under what circumstances can we infer from the uniformity of co-existence

and sequence connecting α , β , γ , δ , ϵ , correlative uniformity of co-existence and sequence connecting a , b , c , d , and e , which cannot be, or at least have not been, otherwise observed or inferred. Now it seems to me that for this purpose—(1) some known psychological state a must have a known physiological correlate a ; (2) a must be known to be connected in a definite manner with another physiological state β ; (3) β must be known to have a psychological correlate b ; and (4) the connection of a and b must not be matter of previous knowledge. If all these conditions are realised it is possible to deduce from the physiological and psycho-physical data a new psychological proposition expressing the relation between a and b . If any of those conditions are unrealised, no such deduction can be made. Now if we examine by this test the physiological matter which is introduced into many psychological treatises, we find that it has for the most part very little psychological value. For example, the endeavours which have been made to find a material correlate to the association of ideas do not really advance the science of mind a single step. They are at best more or less felicitous attempts to make a conjectural translation of known psychological facts into the language of physiology. Our knowledge of the physiological processes concerned is altogether too vague, and our progress in Psycho-physics is altogether too small to enable us to make physiological inferences which shall be capable of re-translation in terms of consciousness, so as to yield new psychological truths. If anything is gained by such attempts the gain is physiological rather than psychological. A logical parallel to the relation between mental science and brain physiology is to be found in the relations between physics and mathematics. The treatment of physical problems is immensely by their reduction to mathematical equations which admit of solution; but it is in no way helped by their reduction to equations which, either from the nature of the case or from the limited progress of mathematical science, admit of no solution. Similarly, nothing is gained from the point of view of the psychologist by stating physiological problems which correspond to psychological ones unless the former are such as can be solved. For these reasons I do not think that mental science has received, or is at present likely to receive, much aid from the physiology of the brain. As regards what may happen in the future it is difficult to speak. When the physiologist attains to as clear and definite a conception of brain processes as the physicist possesses of light and sound vibrations: when he has also an acquaintance with psychology sufficient to enable him to set about establishing definite connections between elementary mental and elementary physiological occurrences; when, finally, he has at his command psychophysical means and

methods adequate to this undertaking—then, indeed, we may hope for abundant and valuable results. But it must be confessed that these conditions are likely to meet fulfilment, if at all, only in the distant future. As regards present achievement, I am disposed to assert that the help which psychology has received from the physiology of the brain is even less than the little which the physiology of the brain has received from psychology.

SYMPOSIUM—THE DISTINCTION BETWEEN WILL AND DESIRE.

I.—*By Professor ALEXANDER BAIN, LL.D.*

WHAT is the distinction between Desire and Will? is a question whose first difficulty is to narrow it to a profitable discussion within an evening's limits.

The nature of Will itself is surrounded with controversial differences of opinion, the chief of which seems to turn on the proper view of the *motives* to the Will—Pleasure or Pain, or both. This would be in itself sufficient occupation for one meeting; if it were an essential preliminary, we should not reach the comparison of Will with Desire. We must, therefore, be satisfied with assuming some settled position, or alternative positions, that will allow us to go on without prejudice to the question more properly implicated in the query. Whether the Will is moved by pleasure alone, by pain alone, or by both, the same thing must re-appear in Desire, considered as a modification of Will, or as another variety of our active function. At the same time, whatever be the ultimate motive to action—pleasure, pain, or their union—it is certain that, as proximate motives, all the three must be admitted, if we are not to falsify the received facts of human life. A theory of Desire that mentioned nothing but pain would be justly denounced as a paradox.

I must farther assume—in opposition to Mr. Bradley's apparent contention in the January number of *Mind*, as to the priority of Desire over Will—that Will is primary and Desire secondary, derived or made up by intellectual intervention. Mr. Bradley's order of treatment is, first, Pleasure and Pain, second, Desire, third, Will. With him Desire comprises three elements: (1) an idea conflicting with present reality, (2) that idea felt to be pleasant, (3) the reality felt to be painful, and the three elements felt as one whole. Then as to the moot point, the *object* of Desire, this Mr. Bradley would call the realisation of our idea, which others would express by “obtaining

the thing longed for." Farther, as to Will itself, Mr. Bradley expresses his general position thus: "It is Will when an idea produces its existence." There is no obvious reason for placing Will after Desire, on this view of it. To all appearance the operation of willing is more elementary than Desire, as above explained. At any rate, it does not lead the author to make a careful comparison between the two operations—to assign their agreements and differences—as we are expected to do, for our present discussion.

Mr. Ward has provided an extremely elaborate analysis of Desire, in which he justly lays stress on the difference between the mind's present power over its active organs, and the ideas of the pleasure or pain that are the basis of the desire. He also remarks that the outgoings of a desire in a particular direction, at a particular moment, has much to do with the freshness or abeyance of the active mental centres concerned. These points are of importance in the exhaustive account of Desire, and indeed may be said to have even a wider application. At present, however, we must keep the question within narrower limits, at least to begin with.

First, then, as to the nature or definition of Will, in its contrast with Desire. There is much to be said in connection with the Will that can be wholly omitted from present consideration. Those speculations as to its deep origin in the self-conservation of the human organism, are entirely unnecessary to be quoted. Also, the process of its growth from the vague to the definite, in the command of the organs, may be left out of the account. We are then restricted to the consideration of psychical cause and effect—of action following on pleasure and pain as motives.

In this view, it is proper to begin with the least complicated situation, which is a present pleasure, or present pain, inducing a present action, there being no obstacle to cause delay. Examples of this very familiar and elementary position can be dispensed with. It is the situation where Desire has no place.

The interposing of delay between a present pleasure or pain, and the action prompted by it, is the circumstance that begets the higher forms of Will—the working by ideas, instead of present realities. There is now room for Desire, but that is not the only term employed to state the new opening. For certain aspects of it, we prefer other names, as for example, Resolution. Undoubtedly, however, the name Desire can be used whenever there is a suspense in the execution of movements stimulated by feeling; we may say that we *desire* the pleasure that we cannot immediately command, but have to wait for. Being actuated with the wish to be present at a public gathering, I have resolved to go there, and may be considered as desiring the pleasure that I am to derive. Here, however, it will be allowed

that Resolution is the better word; while Desire is suitable to a different situation, where Resolution is less applicable. A great part of our active life is engaged in the pursuit of ends, ideally conceived, and demanding time for their accomplishment, but which, nevertheless, are accomplished in set times. The conception and the execution are separated by hours, days, or months; and the activity has to be supported by a sufficient recollection of the pleasures sought, and the pains to be averted. This case has its own psychological rendering or explanation; it requires account to be taken of the ideal persistence of states of feeling, no less than of their original intensity in the actual. If, however, we confine it to the department of unfailing and fulfilled resolutions, we do not encounter the subtlest part of the problem connected with Desire. The comparison with the typical Will, where no interval occurs between motive and act, is, in this department, of the simplest kind.

As we make the intellectual advance of fixing in the memory our pleasures and pains, we not only attain the power of resolving and executing continuous and successive operations for systematically securing the one and avoiding the other; we go farther still, and allow the thoughts to roam into the wider regions of the more or less unattainable. This is to renounce the sobriety of assured and calculated aims in favour of others that we may not even strive to realise, they being such as we do not at all include in the routine of our measured and fruitful activity. A new set of names is provided for the situation: the ideal, the imaginary, day-dreaming, aspiration, are some of the designations made use of. The recollection of pleasure and pain is still essential, but its ways of working are new and distinct. This I take to be the region of Desire in its most characteristic form; the complications attending the problem arise here, and not out of the situation expressed by simple Resolution, Pursuit, and attainment of Ends.

The essential wildness and seeming irregularity of this new phase of the higher Will makes a thesis of very large dimensions. For the present discussion we must endeavour still to narrow it to its barest essentials, and at the same time contribute a profitable exercise for our collective wisdom.

I have already treated this problem (*THE EMOTIONS AND THE WILL: Desire*), and have not much that is new to say upon it. I consider Desire to be "that phase of volition where there is a motive, but not ability, to act upon it either now or in prospect." The normal outlet being thus closed, the alternatives fall to be considered. These are, first, Endurance or voluntary suppression of the craving; second—and far more wide-reaching—Ideal or imaginary action. It is here that we find the problems characteristic of Desire. Is the Will

fully operative in this case, and, if so, with what modifications? What are the circumstances that favour these imaginary outgoings? What is their Hedonic value? What is their connection with the memory of pleasure and pain?

As to the first and chief question—Is the Will operative, and how? I answer simply that this must depend upon there being adequate motives—pleasure to be secured or increased, pain to be avoided. In case of a conflict, which is very likely in the circumstances, the motives must fight it out and show which is the stronger.

In order to bring forward something for discussion, I remark, first, that *dissatisfaction with actuality* is obviously a main condition of Desire, which at once proves that Will is at work. Next, as to the *direction* taken by Desire. This would be likely to follow the nature of the present discomfort, qualified by the ideal value of the imagined remedy; if it is physical discomfort—hunger, cold, acute pain—an ideal relief is notoriously unavailing. Still, the urgency of the state may keep the mind bent upon the means of removal and the imaginary ways of doing it; but all this is more properly allied to voluntary action in its earlier form of actual working for good ends. That we cannot at present, or in immediate prospect, obtain the remedy, does not materially change the attitude of the Will, nor raise it into the characteristic form of desire.

Desire, as imaginary action, is better met by the circumstance adverted to by Mr. Ward—freshness in the activities concerned, in which I would include freshness in the emotional region that is brought under stimulation. In the rotation of stimuli, we cannot command the *beau ideal* condition of bringing every portion of the system into play exactly when, and as long as, it has the freshness due to its natural vigour and its period of remission. As this is not done in the actual, there is an attempt to make up the defect in the ideal. With the senses generally, the attempt barely succeeds: with the lower senses not at all, with the higher senses, hearing and sight, not to any great degree. It is the strong emotions that respond best to ideal stimuli, carrying sense imagery with them; and after an aching void, in any of these, there is no great difficulty in giving them imaginary scope, under the stimulus of some actual pain or some prospective pleasure. The strong affections, the pleasures of self-complacency, power, malignity, the comprehensive self-interest involved in worldly prosperity—all these can be inflamed, and can sustain themselves, at the instance of present discomfort, and with the aid of the fresh condition of the centres that they rely upon. Not only so, but they give a positive satisfaction—a surplus over the pain of conscious inferiority to the actual. Being purely ideal, they have the

unspeakable value, as poets and lovers of poetry well know, of omitting all the disagreeables that occur in the actual; so that the delight has the advantage of purity as against the disadvantage of unreality. Now, what is the Will doing all this time? Apparently, it is playing its characteristic part in the sphere of ideas and emotions; it keeps the mind bent upon the constructions of imagination, because they are pleasurable, and while they are so. When exhaustion or other cause turns the scale, the Will refuses co-operation any longer, and does its best to induce a collapse. It may be baffled for a time, if the intellectual trains have acquired a morbid persistence; but this we have to allow for in all stages of volitional intervention.

So far as this process is concerned, I have some difficulty in starting a topic for debate. I think both the points of agreement, and the points of difference, between Will in its full present actuality, and Will in the highest flights of imaginary activity, are as clearly stateable as anything involving ideas and ideal feelings, can well be. The nature of the motives is fundamentally identical; the difference is, that we have to admit the motive power of pleasure and pain in their highly ideal forms, and under conflict and complication.

The controversies that have been actually maintained in connection with Desire, seem chiefly these two. First, as to the object of Desire,—is it strictly pleasure and pain, and not rather some indifferent object, as Butler and others have contended.

The other is, as to whether the *summum bonum* is to be represented, on the one hand, as Pleasure, or, on the other hand, as what is Desirable. If the view that I have taken of Will be correct, the second alternative is reasoning in a circle. Desire agrees with Will in demanding a motive—pleasure or pain; to say that a thing is desirable, is to say that it gives pleasure or removes pain; the real object is, therefore, not the compound state arising after a motive has put the will in motion, but the motive states in their purity; in other words, pleasure and pain in themselves, in which character they are perfectly conceivable as mental facts.

**II.—By W. R. SORLEY, M.A., Fellow of Trinity College, Cambridge,
Professor of Logic and Philosophy in University College, Cardiff.**

THIS question for our discussion does not seem to me to be one which is likely to be satisfactorily settled, until we have come to some agreement on the more fundamental questions of the psychology of

action. And to enter upon these would lead far beyond the limits of the present paper.

At the same time, those who are otherwise in agreement in their analyses of human activity, draw the line of distinction between Desire and Will at different places. Thus the writers who contend against the hedonistic analysis of Will are not in thorough agreement amongst themselves as to the relation borne to it by Desire. Sometimes the latter is held to be completely accounted for by the influence of pleasure and pain, while by others the object of Desire is maintained to be constituted otherwise.

A disagreement of a somewhat similar kind—though not so important—is met with amongst those who refer both Desire and Will to pleasure and pain. Thus Dr. Bain holds that Desire involves Will—checked before it is fully carried out in action. On the other hand, Mr. Sully looks upon the volition as in all cases the result of some precedent Desire. Will is the fundamental fact for the one, and it leads, when checked, to Desire. Desire is the fundamental fact for the other, and it leads when unchecked to Volition.

It is on this difference of terminology that I may be allowed to say something. The treatment of the subject would be both easier and more satisfactory if we had already come to some agreement as to what the constituents of voluntary action in their ultimate analysis are. But this is a question which (as I have said) it would take too long to discuss, and the answer to which I do not care to assume.

Both Desire and Will, it is acknowledged, belong to the active side of our nature. Desire is not mere presentation or feeling any more than Will is. To distinguish them aright we ought, therefore, to have a clear idea of what is meant by mental activity. Now activity—I should like to maintain—is co-extensive with consciousness. Something is lost in psychology, it seems to me, by treating actions as a class of facts apart from other psychical facts. I cannot but think also that something is lost by ushering in our account of them by attempting to reach them from the outside—so to speak—from automatic bodily movements, spontaneous or reflex. We have really no experience, so far as I can see, of a purely passive mental state. There is a distinctively active element present in the mental concentration which is necessary for perception, and for clear presentation. The nearest approach to passivity we have is not to be found in the state of muscular quiescence—which is quite consistent with intense mental activity; but rather in the reverie or day-dream in which the succession of ideas is undisturbed. In careful observation of external facts, or in following a scientific argument, we find a strongly-marked element of what may be called subjective action or reaction, which is hardly apparent in the mere flow of ideas. What

characterises this activity is the grouping of ideas and (greater or less) concentration of consciousness.

How this concentration of consciousness, or direction of attention, is determined this is not the place to discuss. It may be entirely due to the initial intensity of the ideas themselves and their relation to one another; or it may be governed by the feeling of pleasure or pain accompanying them; or neither of these explanations may be sufficient. In any case it seems to me that we have already got, in this concentration of consciousness, the fundamental element of activity. This element of activity belongs to the states of mind we commonly call cognitive or emotional, as well as to what is specifically termed Volition.

The concentration of consciousness upon an idea or group of ideas, intensifies the idea or the group, and in this way tends to pass from the ideal state to its realisation. It is only, however, when experience has connected with the idea the movements required for its realisation—when means have been devised to suit the end, and connected by association with the conception of the end—that the transition is actually made. Here the tendency to act has become an action in the ordinary sense (according to which "action" means the process by which the passage is made from idea to reality). If through an inhibitory influence, the realisation is hindered and the active tendency checked, we have the state of Desire. This state, therefore, involves the element of activity together with a check to that activity, and the action which, thus inhibited, gives Desire, and which, were it not for the inhibition, would have transformed the idea into reality, seems to me to be properly called a Volition, or Act of Will.

According to Mr. Sully, however, this tendency to action (involving a representation of the object and motived by feeling) is itself called Desire; to which state the element of inhibition seems to be regarded as unessential; while the "new factor" in Volition is said to be "the representation of some action which we recognise as leading to the realisation of this object."

This terminology seems to me unfortunate for two reasons: (1) In the first place, the element of inhibition involved in Desire is disregarded; although, if Desire is regarded as simply the tendency to act or "tendency to strive," some other name might seem to be required for the state of mind in which this tendency is inhibited. Perhaps, however, this objection is of no great importance, just because a certain element of inhibition is *always* involved in such active tendencies, through the distinction in time that must exist between the conception of the object as an end to be striven for and its attainment. (2) In the second place, the peculiarity of Volition,

as thus stated, does not seem to me to mark it off essentially from the original active tendency. When this tendency is inhibited, new means may indeed be devised for overcoming the check, and thus we shall have another Volition of a more definite kind than the former. The one line of action may be better suited than the other to attain an end; but there does not seem to be any such thing as action—or tendency to action—along no line at all. The adaptation of means to end which is conspicuous in ordinary Volition is sometimes the result of careful intellectual investigation and decision, following upon the failure of previous ill-directed activity; sometimes, however, it is brought about by an association which has become automatic; and if Desire is admitted to be an active phenomenon, then the activity involved in it must flow along some channel or other. The course may be less definitely and appropriately marked out in it than in the Volition which follows the Desire. Yet the active element which is fundamental in this Volition, lies also at the basis of, and is implied in Desire; and it seems to me most appropriate to give it the name of Will.

I therefore concur with Dr. Bain's method of drawing the distinction between Desire and Will: though I fear he will hardly approve of my line of defence.

III.—*By J. S. MANN, M.A., Fellow of Trinity College, Oxford.*

PROFESSOR BAIN'S admirable paper has taken up a position with which I agree in the main. I entirely admit that desire is a phase of volition, and that the distinction between will and desire is that between genus and species; I differ from him only in some details. First, as to the action of the will in desire. If will is defined according to Wundt's view, as conscious reaction upon stimulus, it seems to me that the action of will in desire is merely the overflow of surplus energy which is necessitated by its ordinary and natural outflow into muscular energy being checked. This energy may find entirely new channels, and then the desire ceases; as in children, in insane patients, and in some animals. A bird, for instance, which cannot pick up the seed or the worm it wants, will very often desist at once from trying: the presentation of the end disappears at once. But where that presentation persists but the end is unattainable, various methods of relief are attempted. Though, as Professor Bain says, "for physical discomfort ideal relief is notoriously unavailing"

(p. 57), it is often tried nevertheless. We have all heard of ship-wrecked sailors or snow-bound emigrants passing their time in imagining the dinners they will have when they are rescued, or even in describing to one another dinners which are purely ideal. But such relief is more serviceable in the higher desires simply—as it seems to me—because these are more complex, there is more outlet for the surplus energy which cannot issue in action in dreaming of the satisfaction of these, and running on from one presentation to another, and through trains of associated presentations. While, when one connected train of presentations is vividly presented and not inhibited by counter-presentations, we have, as it seems to me, resolution. But this surely ought to be classed with volition rather than with desire. Making up my mind to a certain course involves a vivid presentation of the leading elements in it and of myself as engaged upon them. Sometimes, again, the consciousness of the end is inhibited or partially inhibited by an act of Will, and then we have endurance. In all this I am simply following Professor Bain. What I want to point out, however, is that the energy which is dammed back by the extraneous inhibition of the end desired, and therefore overflows to vivify new presentations, whether accessory to or inhibiting the presentation of the desired object, is precisely the same in kind as the spontaneity which overflows into the play of a kitten: if we call one Will—however elementary its form may be—the other is Will too. The Will then that is present at every stage of Desire, vivifying the various presentations incident to it, seems to me simply the reflex of the inhibited muscular energy.

Precisely the same kind of mental and nervous processes seem to me to be involved in desiring and in willing: only Desire covers a large complex process in which some of the links are either very imperfectly presented to consciousness, or if presented, are met by counter-presentations, and therefore have their vividness neutralised. In willing (ordinarily so called) a smaller part of the process is presented, and so presented as to be carried out. I desire to make 10,000*l.*, but I do not will to do so, because presentations of the various means cannot be so brought together as to be connected into a complete system, or if so presented are met by counter-presentations, and therefore drop out of the system. I know, e.g., various stocks which I might buy for a rise, but my vivid presentation of myself buying them is neutralised and inhibited by the presentation of their falling. Or if I am at the foot of a sea-wall and the tide is rising, I desire to climb up, but my presentation is neutralised by the ideal presentation of a fall. Volition comes when I see a rope, or projections for my feet. Desire is a series of mental states which are apparently irregularly connected just because the surplus energy

which calls them up cannot find vent in bodily action, and so runs on from one presentation to another—sometimes to similar presentations, sometimes to contrary. Willing—commonly so-called—is the vivid presentation of one set, whether as resolution or as motor action. The restlessness and pain of Desire seems to me due to that same surplusage of energy which is felt when no particular object is desired at all, as in periods of listlessness and *ennui*.

Secondly, if the Will in Desire is merely surplus energy, its motive in Desire will not be pleasure, at least not directly, but aversion from pain. The volition which brings up the various presentations in Desire will act, as Locke said, “upon some uneasiness.” Desire, then, will never be simply desire for pleasure; it will always also involve aversion from pain. If so, it would be more correct to distinguish the pleasurable from the object of desire, and to regard that object as indifferent *per se*. I may remark, too, that desire of an object posited by consciousness as pleasurable seems to me long posterior in the history of consciousness to the elementary “conscious reaction on stimulus,” in which Wundt finds the simplest manifestation of will. Whether in psychology or in morals, empiricists, especially in England, always appear to me to make a great deal too much of pleasure and a great deal too little of pain.

Two other points will no doubt be dealt with: (1) the distinction between desire and appetite, or in Aristotelian language between *θούλησις* and *ἐπιθυμία*. (2) the Neo-Kantist view, maintained in the late Professor Green’s “Prolegomena to Ethics.” The first distinction, according to the view I am defending, is merely one of degree. Where there is conscious reaction of a comparatively simple kind, it is Appetite; where the states of consciousness accompanying the reaction are more complex, it is Desire. The second view seems to me to make an unnecessary distinction between the “mere solicitations,” the satisfactions of which are not made ends, and the Desire the satisfaction of which is made part of the self-conscious subject. But this latter desire seems to me a mere mode of will. The distinction, on Professor Green’s view between “Desire proper” and Will, is merely that between “making up your mind to do” and doing. More than this, the view hypostasises the Ego in a way which empirical psychology cannot admit, treating the Ego as it must—and as scientific psychology has from the time of Aristotle—as a composite product.

IV.—*By Rev. E. P. SCRYMGOUR, B.A.; Vice-President.*

THE distinction between Desire and Will I hold to be substantially equivalent to the ancient distinction between Passion and Reason. In endeavouring to establish this important distinction, we may not expect to be able to isolate its members entirely. We may, however, observe instances in which the one or the other predominates as a characteristic: we may further mark how, in a single life, the one or the other prevails as a general attitude of mind. For example:—A man may find himself so overborne by the shocks and stress of life, as to abandon himself a prey to the tyranny of Desire. The force of habit, or immediate necessity may keep him to the old routine, but the whole tenour of conscious experience is changed. In place of an intelligible order, experience has become a perplexed entanglement; in the midst of abundant materials the man is at a loss; instead of assisting one another, the elements of experience so conflict as to threaten a general confusion; the victim of Desire is no longer master of himself.

Now, I think, it is the frequent recurrence in human experience of a condition thus briefly indicated, which makes the real interest of the question before us.

Thus regarded, the distinction between Will and Desire may be significantly described as the distinction between Normal and Abnormal Experience. In using the word Normal I do not mean to intimate that experience thus qualified is more frequent than the reverse. Such usage I should deprecate as a frivolous abuse of a significant term. In marking certain phases of experience as Normal, I would intimate that they are recognised as exhibiting the true Law of Experience, and that from such phases others are distinguished as aberrations. Were there no such law I do not think the distinction between Will and Desire could be seriously maintained. As a mere psychological distinction it does not appear to me to bear critical examination. Every element of conscious experience has the character of a movement, and must therefore exhibit some direction or bent; it is essentially an act, and if taken alone might be described indifferently as a movement of Desire or an exercise of Will. I admit that neither term would be justly applied to an isolated element, but I contend the one might as fairly be applied as the other. The just use of either term implies a comprehensive survey of Experience in its integrity, and then the distinction between them appears as an ethical distinction.

As a crude instance we might notice in passing what is called the desire for food. Beyond the mere pain of hunger, this implies a clear conception of some particular food, and can hardly be distin-

guished from the will to obtain it—except so far as the means attempted may be more or less reasonable; but this involves a wider survey. As soon as we introduce the conception of means, the Law of Subordination begins to appear; yet the distinction does not at once become clear. If, for instance, a man desires to build a house, his desire, to be effectual, must be strong enough and consistently sustained. Of the means he devises, each becomes in turn a distinct object of desire; and the complex mental act constitutes a connected system of desires. If we call this Will, the distinction might at first appear as that between the whole and its parts. But in truth there is a more important difference involved. In a word, the integration is systematic. It is not a mere bundle of desires, but an ordered whole. And this order makes the capital difference, not merely in the realised effect, but even more in the attitude of mind.

Now, if we rightly generalise such an illustration, I think we arrive at a just conception of what I have called the Law of Subordination, in its full compass as the supreme Law of Experience, and obtain a sufficient insight into the essential distinction between Desire and Will. Accordingly I find that this distinction lies in the whole attitude of mind, not in its parts taken singly; and that it depends upon the presence or absence of a clearly conceived Order of integration. Such is a rough statement of my conclusion, embarrassed in some measure by the inevitable limitations of common speech. I will try to correct its ambiguities. First, the terms "presence or absence" must be understood comparatively, for I cannot conceive an instance of conscious experience in which the order of integration is absolutely void; and I suppose that even in the most perfect act of Will with which we are acquainted there is yet a residue of confusion. But in this respect the difference observed is immense, this is more than sufficient for comparison; nor is the distinction involved less essential because the difference is not absolute. We may describe it as a difference of direction, for the practical question is whether, in a particular instance, Desire is growing into the clear determination of Will, or Will is degenerating into the mere vagueness of Desire—the Normal direction of Experience being the creation of Will out of the chaos of Desire.

Next, as to the mode in which the Order of integration is conceived: this is not in general reflective. A man does not stay to consider the Order of his own experience as such; this would be to interrupt the natural proceeding. Nevertheless he is effectively aware of this Order as the scope or purpose of his endeavour. It appears as a rational bond connecting and controlling the whole movement. As a real object it fixes attention, though continually changing as the purpose unfolds. As the constant centre of interest

it sways the situation. Yet on reflection this potent idea appears to be nothing else than the Order of conscious experience.

This Order is not merely, or even mainly successive. It is the Order or intelligible form of a changing presentation. This, I think, is the proper use of the word. Some touch of it belongs, no doubt, to the idlest dream, so long as the subject is aware, but how slight is the touch, how dim the light—here the gloaming prevails. Compare the full daylight of determinate purpose, in which the illuminating Idea connects the whole presentation, it may be through days or weeks or years, nay, perchance through a lifetime. For the more perfect acts of Will are by their very nature thus prolonged. The Integration is more complex, the Order more sustained. The field of the connecting Idea reaches even beyond the mere individual experience, which by means of this idea, is held closer to that larger Experience to which it belongs.

In the last sentence I have touched on a vital point of the inquiry. This is the moral bearing of Will; wherein the ethical character of its distinction from Desire comes into clearer view. It is beyond dispute, I suppose, that determinate purpose confirms the social bond and consolidates community. Men are united by common interests and common pursuits. Society is bound by the bond of Will. I do not lose sight of the fact that determinate purpose sets men at feud, but I think it must be admitted that the former tendency prevails. And apart from this I should insist that social integration is the normal action of Will. Now let us observe the inverse. In so far as a man's particular purposes permanently conflict with those of his neighbours, he cannot be at peace within himself. Let these purposes be ever so consistent internally, they are set in a discordant medium from which there is no escape. We are so connected by our common humanity that the lack of sympathetic intelligence is felt as a jar. In respect of the medium of community these alien purposes are but as wandering desires. The perfection of Will requires that its exercise should be in touch with the normal movement of that general experience to which the individual belongs. Thus, in its typical form, Will is essentially good; because it bears the stamp of that great law of subordination which controls the movement of experience as a whole. Whatever conflicts with this is retrogressive, abnormal, and bears, by comparison, the character of aberrant desire. Will, in its fullness, is luminous throughout, penetrated by the light of the great Ideal. It is true a man of powerful originality may consistently endure conflict for a while; but then it is in prospect of an ultimate adjustment, supported by the glimpse of a harmony which lies deeper than the temporary jar.

It is only by some such elaborate disquisition that the real import

of the distinction before us can be shown. The typical idea is the same throughout. The house to be built is not the mere plan of the house ; it is the integral system of various activities involved in its production, conceived in their mutual relationship, in clear subordination to one another. This systematic subministration is the idea. Thus, too, we speak of the problem to be solved, the thought to be embodied, the difficulty to be overcome, the thing to be done—using in each case a succinct expression to intimate an elaborate integration, seen in its outline at a glance. But no single purpose, be it ever so magnificent, is fairly conceived, except in relation to what I have called the medium of community. The Napoleonic scheme of uniting Europe into a new civil order by a gigantic stroke of violence proved abortive. However grandly conceived, it was in this respect insubordinate outrageously. It burst like a monstrous bubble of Desire, and the great Law was avenged. Where the particular purpose is intrinsically small, relation to the medium becomes more obviously prominent. The danger, here always at hand, becomes manifest in the vulgar irregularities of discontent. Nor is this danger met by an enlargement of the wealth of individual experience. By every such enlargement the danger of insubordination, and consequent dissipation, is rather increased ; but then the means of achievement are augmented likewise.

The distinction between Will and Desire lies so entirely in the mental attitude, that no particular reference to overt action appears to me needful in treating it. The distinction is as clear and important in intellectual endeavour as in that which is more commonly called practical ; only that in this latter it becomes more immediately obvious to others. All endeavour is properly practical—all rational endeavour beneficent. Kant is right in insisting that Will is the one thing that has no equivalent. The world is for man, not man for the world. I cannot agree with Dr. Bain, that poetic imagination is a sort of lollipop for big babies, nor that it is especially the region of Desire. I admit that in the particular species of poetry termed lyric, it is the office of the poet to exhibit the play of insubordinate Desire, and that this enters largely into the complicated conflict of the drama. But poetic imagination is larger than the drama, and its great achievements show, I think, some of the noblest triumphs of Will. Even in lyric poetry there is always a reserve, and its beauty lies in the fact that the burst of passionate Desire is under control. The poet's grasp of the ideal is far from being barren in direct bearing on the rational endeavours of common life.

I cannot conclude better than with the significant words of Spinoza, which, in substance, I have attempted to interpret : “*Affectus, qui passio est, desinit esse passio, simulatque ejus claram et distinctam formamus ideam.*”

V.—*By SHADWORTH H. HODGSON, M.A., LL.D.; President.*

IN the first place, I am unable to accept Mr. Scrymgour's proposed identification of this question with that concerning the distinction between Passion and Reason. That the Will *ought to be* under the guidance of Reason may be admitted; but this does not touch the question, what the Will is *quā* Will, which may or may not be guided by Reason.

So also I am unable to accept the account of Will given by an able writer, quoted (not with approval) by Dr. Bain, that "it is Will when an idea produces its existence." I can attach no real meaning to the words "an idea produces its existence."

I find myself much more nearly in accordance with the papers by Dr. Bain, Mr. Mann, and Professor Sorley, though this accordance is by no means complete.

The following is the way in which the question presents itself to me:—

1. I begin by observing that the physiological or cerebral energy involved in Desire and Will is one thing and the concomitant states of consciousness another. Moreover, desire and volition, in the present state of physiological and anatomical knowledge, are distinguishable only by means of differences observable in the concomitant states of consciousness. They are terms of subjective analysis, not *as yet* of physiological analysis also.

2. Some physiological reaction or reactive energy is, no doubt, involved *in both*; it may be partially the same, or it may be wholly different, but the question is, by what note or mark *in consciousness* do we distinguish the reaction in Desire from the reaction in Will, taking both as intra-cerebral reactions, and abstracting from the muscular or otherwise overt actions which follow from them? This is the same thing as asking, What we mean by *Desire* and what we mean by *Will*, supposing both alike to be reactive energies?

3. The question so prepared, it seems to me that the difference between the meanings of these terms is easily made manifest. A desire is an intra-cerebral reaction *appetitive* of some particular satisfaction; a volition is an intra-cerebral reaction *selective* between opposite satisfactions, or between a satisfaction and its denial.

4. In support of this I would remark that we always desire either to *have* or to *be* something, whereas we always will to *do* something. This is quite in accordance with the three papers mentioned. The object of a desire is never in our immediate power; an obstacle to, or inhibition of, the satisfaction is a circumstance essential to its being an object of Desire at all. In volition, on the other hand, a selection

between opposite satisfactions, or between a satisfaction and its denial, is always in our immediate power. I mean that, so far as we exercise volition, we always choose, not, indeed, between two desired objects, but between *desiring* the one or *desiring* the other. Our Will may be feeble, but, so far as it exists and its power goes, the volition to do and the doing are one. In other terms, volition is a selective reaction. It is intra-cerebral and conscious *doing*, and this doing is what we are conscious of in it. It is defined, not (like Desire) by what it aims at or tends to, or by the represented satisfaction which arouses it, but by what it is *as action*. As action, it is selective—that is, it is *choice*, and this is its *differentia*. Accordingly I hold that we *desire* an object or a state of feeling, or to be something higher or better than we are; but we always *will* an action, and that action of our own an action of choice, and that a choice immediately executed (intra-cerebrally); otherwise it is not a volition, not an act of Will, at all.

5. For my part, then, I cannot agree with those who make either volition a Phase of Desire, or Desire a phase of volition, however closely the two may be interwoven with each other; for their true definitions go upon different principles. Volition is defined by its *nature* as conscious action; desire, by its *object* or *aim* as conscious action. Action, or rather reaction, is the common genus to which both belong, and the same concrete action may very often be, or contain both at once. Thus an action may begin as a desire, and end by being selected, and, as it were, adopted by volition; or it may begin as volition and end as Desire, harmonising with the kind of action selected. If, therefore, I have defined the two terms rightly, for the purpose of the present discrimination, they must be held to be logically and analytically exclusive of each other, at the same time that, as just explained, they are mutually necessary and co-involved in concrete experience.

NOTES.

By SHADWORTH H. HODGSON, M.A., LL.D.; President.

I.—ON THE RELATION OF KNOWLEDGE TO BELIEF.

It is a common device to represent immediately certain knowledge as a particular case of belief. The circumstance which serves to accredit this falsity is the following, viz., that of facts which are ultimate and immediately known there is *no proof*, but only *experience*

of them. For, of course, as we all know, but do not always remember, proof rests upon them, not they upon proof. Now, whatever is ultimately and immediately known, as, e.g., a sensation, say, of sound, or colour, or pain, or pleasure, is called a *fact*. It is incapable of proof because it is at once ultimate, i.e., not further analysable—or, if analysable, yet analysable only into inseparable though distinguishable elements—and also immediately perceived. But it is not therefore a *belief*; it is *knowledge*. The term *belief* is properly reserved for those facts, real or supposed, which, not being ultimate and immediate, are also *unproven*, that is, not strictly demonstrated to follow from facts which are ultimate and immediate, but for which there are either certain *grounds* of probability, or at any rate certain *motives* of assumption. This is the commonly accepted signification of the term *belief*,—persuasion of a supposed fact which is neither immediately known nor strictly demonstrated. Belief is therefore a particular mode of knowledge as a general term, and not knowledge a particular mode of belief as a general term.

Observe the advantages, and to whom they accrue, of subsuming knowledge under belief, instead of *vice versa*. If we take Belief or Persuasion of anything as our highest general term in these matters, and say that immediately known facts are those of *which the persuasion is irresistible*, a persuasion forced upon us, and which we cannot help having, the distinct line of demarcation between fact and imagination is then obliterated, for there may exist, for many, an imagination the *motives* for which are so strong, that we cannot help believing it, and may feel ourselves irresistibly compelled to accept it as a fact. Personal and individual idiosyncrasies and habits of mind come in to influence belief, and yet the mere strength of conviction so produced is no criterion of the truth of fact. Fiction and fact become indistinguishable, if individual motives are allowed to contribute their strength to the acceptance of what is to be called and accounted *fact*.

Now, there may be many who would count it an advantage to have the strict logical line of demarcation between known fact and imagined fact obliterated; a class which would probably include those who have it at heart to establish or propagate any kind of non-scientific creed concerning matters which, by their nature, are within the domain of science, as an absolute verity beyond the reach of scientific criticism.

But it will probably be said that, thus weighing the comparative advantage and disadvantage in the two ways of taking this matter, does not really decide the question between them. It may seem to

= that the question is a logical one, and that there is quite as
= justification for subsuming knowledge under belief as

for the opposite way of subsuming belief under knowledge. Let us then take the question on this ground. There is a circumstance which decides conclusively, in my opinion, for the latter, and it is this. The former way—that of subsuming knowledge under belief—requires and rests on the assumption that there is an individual conscious being who is the Subject of the belief, with whom motives are operative as a real agent. It stands, therefore, on the lower ground of Psychology, and does not touch the higher ground of Philosophy at all. The latter way of taking the matter on the contrary, the way of subsuming belief under knowledge, requires and rests on no assumption at all; it points to distinctions in the content of consciousness simply as a content, and takes its stand upon them, in classifying the kinds of knowledge in the way it does. In other words, it is a philosophical, and not merely a psychological distinction and method. The term *belief* implies not merely a content of consciousness, but also a state of mind in reference to that content, a belief in an *object* described or conveyed by the content. Subject, Object, and Relation between them, are all pre-supposed by the term *belief*. Knowledge, Experience, Consciousness, on the other hand, are terms which imply nothing beyond the *content* of consciousness taken by itself, in abstraction from Subject, Object, and Relation between them. These come out of the *content*, not the content out of *them*. In Philosophy, therefore, and as philosophical ways of treating the phenomena of experience, the method which subsumes belief under knowledge, is justified in preference to the method which subsumes knowledge under belief.

II.—ON SOME AMBIGUITIES IN THE WORD *TIME*.

It has occurred to me that it may be useful to note and put in evidence some of the very varying meanings in which we often find the word *Time* made use of. I do not suppose the five which I have set down are anything like all that might be noted and contradistinguished. They may serve, however, as a beginning, to which contributions may from time to time be made by others.

1. The first sense of the term is that which I will call the philosophical sense of it, in which it is taken as the inseparable co-element of feeling in consciousness, and definable as the *duration of change, or duration of process*.

2. The second is Time in the abstract, treated as if it could stand

alone, as a sort of unilinear medium in which all things are found ; in this meaning it is definable as *duration per se*.

3. This same abstract duration *per se* treated as if it could itself change or vary, though still having an unvarying rate of change. This might be called *absolute time*, of which Newton says—*æquabiliter fluit.*

4. Time used in the sense of an order or series of empirical occurrences considered as discrete and successive, e.g., the seasons; day and night ; the ticking of a clock, &c., &c.

5. The word used to express the abstract *relation* of succession between empirical occurrences, such as those last described, each instance of which succession is then regarded as infinitesimal in duration, making together a sequence of $\tau\alpha\ \nu\tau\pi$, present moments, which divide time rather than occupy it.

III.—ON THE “IGNAVA RATIO,” ‘ΑΡΓΟΣ ΛΟΓΟΣ, OR IDLE ARGUMENT.

THIS argument was devised, according to Zeller (*Geschichte der Griech. Philosophie*, Vol. IV., note 1, p. 168), in refutation of Chrysippus, the Stoic and determinist ; and was intended to show that all human action was either impossible or useless on determinist principles ; it was intended as a *reductio ad absurdum* of determinism. Zeller refers to Cicero, *De Fato* XII. 28—XIII. 30, for a statement of the argument and of the mode in which Chrysippus rebutted it.

“Nec nos impedit illa ignava ratio, quæ dicitur. Appellatur enim quidam a philosophis ἀργὸς λόγος, cui si pareamus, nihil omnino agamus in vita. Sic enim interrogant: Si fatum tibi est, ex hoc morbo convalescere ; sive medicum adhibueris, sive non adhibueris, convalesces. 29, Item: Si fatum tibi est, ex hoc morbo non convalescere ; sive tu medicum adhibueris, sive non adhibueris, non convalesces. Et alterutrum fatum est. Medicum ergo adhibere nihil attinet.”

Chrysippus replied by distinguishing things *simplicia* from things *copulata* and *confatalia*. “Simplex est: Morietur eo die Socrates.” But “Luctabitur Olympiis Milo,—copulatum est, quia sine adversario nulla luctatio est.” “Omnes igitur istius generis captiones eodem modo refelluntur: Sive tu adhibueris medicum, sive non adhibueris, convalesces : captiosum. Tam enim est fatale, medicum adhibere, convalescere. Hæc ut dixi, confatalia ille appellat.”

The uniform order of Nature and inviolable concatenation of causes and effects were the Stoic tenets. The *ignava ratio* substituted for this idea the idea of a pre-determined issue or result, brought about *not* by way of cause and effect, *but* by some mystic or magic agency independent of cause. The circumstance insisted on by Chrysippus, namely, that means and ends are bound up together, certain ends implying the use of certain kind of means, and action consisting in the adaptation of means to ends, brings back the matter to its true bearings.

In the instance of convalescence and non-convalescence from an illness, given in the passage from Cicero, the certainty that one of the contradictory alternatives must take place, though it is uncertain which, seems to point to a source of *à priori* knowledge, and so to favour the idea of an inevitable destiny independent of means and independent of obstacles. "*Et alterutrum fatum est.*" Nevertheless, the knowledge that the result will be either A or not-A, is not the same thing as knowing *which*; neither is it the same thing as knowing *that*, whichever it is, will be independent of cause, and dependent solely on fate. Logically, if I am the invalid, I must have it proved to me either that my recovery is positively impossible, or that the issue is independent of the means adopted, before I allow myself to be persuaded not to send for the doctor.

The fallacy of the *ignava ratio* may perhaps be briefly stated as follows:—It represents the undoubted fact, that every line of action, or course of events, *has some result or other*, as equivalent to the (supposed) fact, that results are demanded by destiny, independently of their antecedents. In conclusion, I may add that this fallacy is made the subject of some interesting remarks in M. Fouillée's *La Liberté et le Déterminisme*, 2nd edition, p. 20, being named there *le sophisme paresseux*.

PART II.**PROCEEDINGS OF THE SOCIETY,****INCLUDING****ABSTRACTS OF PAPERS****READ DURING THE SESSION 1887-88.**

MEETING held on November 7th, 1887. Professor Dunstan, V.P., in the Chair.

The minutes of the previous meeting were read and confirmed.

Mr. Arthur M. Smith was elected a member, and the Executive Committee nominated for election Mr. G. F. Stout, M.A., Mr. R. J. Quelch, and Mr. W. Macdonald.

The President delivered an address on "The Unseen World." This address has been published by Messrs. Williams and Norgate, and through the kindness of the President each member of the Society has received a copy.

MEETING held on November 21st, 1887. The President in the Chair.

The minutes of the previous meeting were read and confirmed.

Mr. G. F. Stout, M.A., Fellow of St. John's College, Cambridge, Mr. R. J. Quelch, and Mr. William Macdonald, were elected members.

Dr. J. McK. Cattell, of the University of Pennsylvania, read a paper on—

THE PSYCHOLOGICAL LABORATORY AT LEIPZIG.

(This paper is published in "*Mind*" for January, 1888.)[*Abstract.*]

Experimental psychology undertakes to analyse and measure mental phenomena, and the systematic work of the laboratory is to be advocated both for the education of students and for the advancement of knowledge. Whenever experiment has been introduced into science a rapid advance has followed, and there are good grounds for hope that methods which have been so fruitful in physics will not prove barren for psychology. The study of consciousness is, as we all know, fraught with peculiar difficulties. It is not easy to be at once the observer and observed. "The eye sees not itself," and the phenomena are both complex and transient. The best results have been obtained when introspection has been combined with the objective manifestations of the contents of other minds, more especially when they have on the one hand become fossilised, as in language, customs, art, &c.; or, on the other hand, are relatively simple, as in children, in savages, and in disease. But, under circumstances the most favourable to scientific observation, there are serious difficulties in the way of exact analysis and measurement; and it will be found that in psychology, as elsewhere in science, experiment gives the most trustworthy and accurate results. Experiment calls up the phenomena to be studied when wanted, and by keeping certain conditions constant, and by altering others, gives the best chance for analysis; above all, it enables us to *photograph* the transient phenomena, and submit them to objective examination and measurement. An account was then given of the psychological laboratory at Leipzig, founded by Professor Wundt in 1879, and of the researches which have been undertaken in it, including experiments on the measurement of sensation, the duration of mental processes, attention, memory, and other subjects.

[*Discussion followed.*]

MEETING held on December 5th, 1887. Professor Dunstan, V.P., in the Chair.

The minutes of the previous meeting were read and confirmed.

The President opened a symposium on the question "Is Mind Synonymous with Consciousness?" Papers were also contributed by

Mr. D. G. Ritchie, Mr. G. F. Stout, Mr. Bernard Bosanquet, and Mr. S. Alexander, and a discussion followed. These papers are printed on pp. 5-33.

MEETING held on December 19th, 1887. The President in the Chair.

The minutes of the previous meeting was read and confirmed.

Mr. Bernard Hollander was nominated by the Executive Committee for election as a member.

Miss C. E. Plumptre read a paper on—

THE RISE AND DEVELOPMENT OF PHILOSOPHY DURING THE RENAISSANCE.

[*Abstract.*]

In relating the history of Thought during any given period there is always difficulty in assigning to its beginning and end a definite date. In history, as in science, slow, gradual growth, rather than abrupt commencements and conclusions is the rule. But for purposes of convenience there are three facts to be kept in remembrance as more or less conducive to a better comprehension of the philosophy of the Renaissance. 1st. The introduction of Arabian learning into Europe; 2ndly, Scholasticism; 3rdly, The Reformation. Of these the influence of Arabian learning was the most direct. The Arabians paid great attention to medicine and to original research. The experimental method of Aristotle found favour with them; and to a large extent they discarded authority. Their influence upon Italy was thus distinctly secular.

But now the Church, trembling for her authority before the new learning, also studied Aristotle, but only in the letter, not in the spirit, consecrating such of his errors as were in harmony with the Church. This intermixture of pseudo-Aristotelianism and theology gradually developed into Scholasticism. Its influence upon the philosophy of the Renaissance was indirect, rather than direct, and lay principally in the spirit of reaction it excited in the Italian philosophers, who, confounding the abuse with the use, became antagonistic to the teaching of Aristotle.

The influence of the Reformation was also indirect; the lesson to be learnt from it being through what it failed to effect rather than through what it effected. It made less progress in Italy than other

countries, because the essential spirit of Italy had grown by this time to be secular, while that of the rest of Europe was superstitious. The two soils were so distinct that seed which could abundantly flourish in the one could scarcely take root in the other.

In other branches of study the Renaissance has rightly been called the Revival of Learning, but as applied to philosophy the term is misleading. With the philosophers of the Renaissance, there was no exclusive surrender to classical studies or the teaching of others, but rather a passionate devotion to truth and original research.

Considered in relation to succeeding ages, the philosophy of the Renaissance bears a greater resemblance to that of the latter part of the nineteenth century than to the intervening ages.

[Discussion followed.]

MEETING held on January 2nd, 1888. Rev. E. P. Scrymgour, V.P., in the Chair.

The minutes of the previous meeting were read and confirmed.

A discussion took place on the subject of the President's address (see p. 74), in which Messrs. Bosanquet, Carr, Cook, Daphne, Dunstan, Hamilton, Lake, Quelch, and Scrymgour took part. The President replied.

MEETING held on January 9th, 1888. The President in the Chair.

The minutes of the previous meeting were read and confirmed.

Mr. Bernard Hollander was elected a member.

Mr. G. J. Romanes, LL.D., F.R.S., read a paper on "Darwinism in Relation to Design," and a discussion followed.

MEETING held on January 23rd, 1888. The President in the Chair.

The minutes of the previous meeting were read and confirmed.

Mr. J. G. Willis, B.A., was nominated by the Executive Committee for election as a member.

Mr. Bernard Bosanquet, M.A., read a paper on—

THE PHILOSOPHICAL IMPORTANCE OF A TRUE THEORY
OF IDENTITY.

(This paper is published in "*Mind*" for July, 1888.)

[*Abstract.*.]

Believing that the theory of identity is the only fundamental question at issue between thinkers interested in German speculation and those of the distinctively English school, the writer was anxious to state the question precisely, and to trace its far-reaching consequences. Attributing to English thought the view that it is the ideal of identity to exclude difference, he first pointed out the nature of this principle in the province of logic, referring in particular to Hamilton, Jevons, and Herbert Spencer, and explained the truer doctrine of recent logic to the effect that an identity of universal is a meeting-point of differences, and that identity in judgment is incompatible with tautology. An analogous contrast of principles shows itself in psychology, especially in the question whether association by similarity can be reduced to a principle more like that of contiguity, and in atomism or individualism and the opposite conceptions in ethical and political science. Brilliant as has been the history of British philosophy, it reveals a certain insensibility to the organic and coherent aspect of man's spiritual achievement, as the mere inspection of the range of British philosophical literature seems to demonstrate. There may be historical causes of this defect, which does not appear to be rooted in the national character, and which participation in the present movement of European culture, including, among many elements, an attempt towards a more synthetic and vital philosophy, is tending to remove.

[Discussion followed.]

MEETING held on February 6th, 1888. The President in the Chair.

The minutes of the previous meeting were read and confirmed.

Mr. J. G. Willis, B.A., was elected a member.

Mr. J. S. Mann, M.A., read a paper on—

WUNDT'S THEORY OF APPERCEPTION.

[*Abstract.*]

After stating the theory at some length and mentioning phenomena which it served to explain, the writer noticed that it appropriated for empiricism doctrines hitherto the special property of metempirical schools. Attention was then called to its application by Wundt in explaining the formation of concepts. The name of a concept is frequently (as Wundt points out) an epithet applying only to a small part of the total, and selected, to all appearance, quite arbitrarily. The earth is the "ploughed," the moon "the measurer;" a "Pferd" was originally only a stronger kind of post-horse. Other instances were given from among Greek animal-names: —σκύλαξ, κερδώ (fox), σιμίας and καλλιάς (ape), αἴλουρος. Recent philology, too, seemed to support Wundt's view of the progress of mind. This, in one respect, might briefly be described as the gradual focussing of the apperceptive activity on smaller and smaller portions successively of the field of mental vision, with a consequent gain in clearness of definition and analysis. The difficulty of the theory—its insistence that attention is always voluntary—was partly obviated by Wundt's account of the formation of concepts; but the theory was less an induction from experiment than a deduction from Wundt's theory of the composition of mind. In conjunction with this, it would account for (e.g.) hallucination in delirium, unexpected outbreaks of vicious propensities (especially in insanity), &c. But if reaction in such cases is voluntary, it was maintained, the term "voluntary," in extending its range downwards, must lose something in the other direction. Among the more complicated apperceptive reactions we have acts to which moral predicates should apply, but they do not, because of the state of the agent. With Wundt's use of the term, "voluntary," as applied to the agent, becomes unmeaning, for all action is voluntary which is not purely reflex. And the "voluntariness" of an act becomes an unimportant element in determining whether moral predicates can be applied to it or not. "Voluntariness," in short, in this extended sense, loses its prominence in our conception of morality.

[Discussion followed.]

MEETING held February 20th, 1888. The President in the Chair.
The minutes of the previous meeting were read and confirmed.

The Executive Committee nominated for election as a Member,
Rev. J. Lightfoot, M.A., D.Sc.

Rev. E. P. Scrymgour, B.A., Vice-President, read a paper on—

THE REAL ESSENCE OF RELIGION.

[*Abstract.*.]

The comprehensive character of philosophy was considered as rationally encyclopædic, its progress involving, of necessity, a vast intellectual co-operation. To such co-operation, as pre-eminently marking modern life, was attributed the origin of that peculiar idea named Consciousness, considered as the problem of Philosophy; which, accordingly, fell into four natural divisions, in each of which the same problem is studied successively from a more comprehensive point of view. These were named (1) Conception, (2) Community, (3) Science, (4) Conscience. Under the first head we study the mode in which all real objects whatsoever are grasped by means of a progressive understanding of their mutual relations. Under the second, attention is fixed on that sort of real objects already distinguished as persons, and we observe how these are progressively known to one another by means of their mutual relationship, and how the establishment of such Personal Community generally depends upon a *common* knowledge of real objects. Having thus obtained a sufficient apprehension of the function of knowledge in the establishment of Community, we observe under the third head how the progress of this knowledge brings to light a new set of objects under the name of Laws—objects which must be recognised as real by the note of their *permanent interest*, which was maintained to be everywhere the criterion of reality. Seeing that the knowledge of Law is pre-eminently the means by which Community is established, we have finally to mark more decisively that this knowledge is *progressive*, and, therefore, *voluntary*. Under the fourth head Consciousness appears as Will, and as such it is the domain of religion. Healthy life is briefly described as conceptual endeavour, issuing spontaneously in reasonable action. But such progressive endeavour cannot be imposed upon an individual otherwise than as Duty. Law is the utterance of superior Power; but this power is not force. It acts upon the individual as *influence*, persuading, convincing, constraining—not compelling. He may resist its authority, and so destroy himself and injure others: and there is nothing to overcome such resistance but conviction of the majesty of Law as rationally supreme. The conception of Law as Force the reader maintained to be demonstrably untrue. As rational superiority, acting through know-

ledge, he contended that it is the saving power in human life. As permanent influence constraining to progressive rational endeavour, it is the supreme Will, and therefore personal. Conceptual endeavour, in its perfection, is the fulfilment of supreme Will on the part of an individual—it is a perfect act of Will, essentially progressive and beneficent. But, because it is an act of Will, it has of necessity its counterpart in opposition, more or less pronounced. Such opposition is an act of Will in the negative sense, essentially retrogressive and destructive. Such bare assertion of Will, in defiance of admitted superiority, the reader maintained to be the real essence of evil. In the act of sin, vital progress is arrested, degradation is its necessary consequence—wanton self-abandonment alternates with blind selfishness, until, by a *real* act of will, moral vitality is restored. As free obedience to acknowledged superiority, such an act of restoration is essentially religious; and it is in view of such restoration, pre-eminently, that supreme Power appears as beneficent. God is good because He rescues man from the peril of sin, which is inherent in the nature of Consciousness as Will. As the sustaining energy of progressive endeavour, God is the Saviour of that Community of which He is the Head. It is true that Law, as actually known, appears fragmentary, and, in part, conflicting; but, in its perpetual unfolding, it bears within it a promise of perfected reconciliation. The central secret we may not expect to possess otherwise than prospectively—*we are constrained to seek it*; and the intrinsic purpose of this perpetual unfolding is manifestly known as the progressive perfection of the civil life.

[Discussion followed.]

MEETING held on March 5th, 1888. The President in the Chair.
The minutes of the previous meeting were read and confirmed.
The Rev. John Lightfoot, M.A., D.Sc., was elected a member.
A paper was read by Miss M. S. Handley on—

THE NATURE OF AN ACT.

[*Abstract.*]

The question as to the nature of an act does not belong to one department of knowledge alone.

1. From consciousness alone, *i.e.*, in philosophical analysis, one answer is obtainable.

2. From consciousness in connection with its condition, brain action, a further elucidation is obtainable.

3. There is the further question, regarding "the action of the Infinite Existent being continued in our own;" and also—

4. What the nature of that action is which is characterised as self-determination.

This last, the most difficult problem, to which many others lead up, is at present apparently insoluble.

(1.) Every movement is a complex state, made up of an action and the object of that action, the perceiving and perception, which in the following moment become—in our president's words—twofold objects of the next perception ("Philosophy and Experience" p. 38); but I hold the important thing to lay stress on is that in (1) as well as in (2) the two elements are co-existent. This so important, because of the confusion of thought that arises from this complex state being regarded as simple.

The former of the two elements, the act and its object, is only known immediately, and is best expressed by the term seeing—a physical object is *seen*, so also is a mental object. It is important to note the *sameness* of this *act*—in the two kinds of vision; that is the source of the feeling of personal identity—subtle and difficult to grasp—yet truly it is the conscious being who sees, perceives.

Most of our thinking and acting is automatic, *i.e.*, "the action of the Infinite Existent is continued in our own," in the same manner as it is in animal and plant life; but at a certain stage in the evolution of human nature a new force comes into being, that which makes man distinctively *man*, *i.e.*, constitutes his essential *sonship* to the Father of Spirits. The *perceiving* structuralism of the human organism, unlike all other structuralisation, can direct it into different modifications, and, in so far as it does this, is *creative* of itself and of its environment, and gives the denial to the doctrine that man's being is a mere wavelet on the bosom of eternal life, since it constitutes him an eternal existent, with an assured though limited creative power. But to explain the mystery of this deeper, richer life, we are no more able than we are to unfold the mystery of that first bubbling life that demarcates the organic from the inorganic world.

This paper gave rise to a discussion.

Mr. E. Wake Cook read a paper on "The Value of Experience," which was also followed by a discussion.

The President read three short papers, entitled "The Relation of Knowledge to Belief," "On some Ambiguities in the word Time," and on "The Ignava Ratio, or Idle Argument."

These three papers are printed on pp. 69-73.

MEETING held on March 19th, 1888. The President in the Chair.
 The minutes of the previous meeting were read and confirmed.
 Mr. G. F. Stout, M.A., read a paper on "The Scope and Method
 of Psychology," which is printed on p. 33. A discussion followed.

MEETING held on April 9th, 1888. The President in the Chair.
 The minutes of the previous meeting were read and confirmed.
 Dr. Clair J. Grece read a paper on—

HERACLITUS AND HIS PHILOSOPHY.

[*Abstract.*]

After indicating the chronological position of Heraclitus, the paper pointed out that the pre-Socratic schools of philosophy had two local centres, Ionia and Lower Italy, and that the striving after unity in multiplicity, which is the source of science, sought in the former school its realisation in some material substance, and in the latter in an abstract or intellectual unity. The Italian school culminated in Zeno the Eleatic, and his dialectics against the reality of motion. Heraclitus's system was the polar antithesis to this Zenonic position, inasmuch as he made motion the principle of all things. Heraclitus was the Prince of Philosophers, he being the first to grasp this principle, and to develop its essence as a conflict of contraries. His manner of exposition, however, was inadequate and obscure, because, being the pioneer of the idea, no adequate expression existed ready-made in language, which can be only the vehicle of ideas current at the time, and his effort was, by multiplying symbols for his idea, to eke out the incompleteness of each. The paper then dwelt upon the limits of the validity of the principle of contraction. Valid for all from which motion, becoming or genesis, was abstracted, it was invalid for everything in movement or progress, that is, for all living realities.

Movement involves a succession of phenomena, but an orderly, not a rhapsodical, succession. The pervading *nexus* is reason, or causation; causality being the analogon, in the region of the unconscious, to reason within the sphere of consciousness and necessity, being common to both. Science is the translation into the region of consciousness, or mind, of the reason which exists in a latent state in the sphere of the unconscious, or of things. The individual man is the seat of a continual interaction, physical and

mental, between himself and nature; where this process is checked there is, upon the physical side, disease; upon the mental or moral side, error or immorality. The paper then made a leap of more than 2,000 years, to point out how the Zenonic dialectics reappeared in the antinomies of Kant, to be again solved by Hegel, the Heraclitus of modern philosophy.

[Discussion followed.]

MEETING held on April 23rd, 1888. The President in the Chair.
The minutes of the previous meeting were read and confirmed.
The President announced that he had received from the Secretary of the Philosophical Society of Vienna, an account of the formation and objects of the Society.

Mr. Pasco Daphne, LL.B., read a paper on—

SOME CONSCIENCE THEORIES.

[*Abstract.*]

In this paper, following an analysis of the notions involved in the contrasted terms, "Fact and Right," attention was drawn to the two independent questions involved in any enquiry into the genesis of "conscience," viz., that of the genesis of the various existing rules of conduct (which could often be traced), and the genesis of the partly intellectual, partly emotional, state called conscience, which was not so capable of demonstration.

The view taken by Professor Bain in his book on the Emotions and the Will, "that its germ is fear induced by punishment," was not considered satisfactory, since it involves the assumption that disinterested, and even self-sacrificing acts, from the prompting of which both fear and hope of praise were admittedly absent as motives, nevertheless arose from a germ of which fear was the solitary characteristic.

The writer doubted whether any satisfactory scientific theory of the genesis of conscience was to be expected, but inclined to consider it more akin, so far as feeling was concerned, to the discomfort felt in any case at being out of correspondence with surrounding relations.

[Discussion followed.]

MEETING held on May 7th, 1888. The President in the Chair.

The minutes of the previous meeting were read and confirmed.

A symposium on the subject of the "Distinction between Will and Desire" was opened with a paper by Professor Bain, which was followed by papers from Mr. J. S. Mann, Professor W. R. Sorley, Rev. E. P. Scrymgour, and the President. These papers are printed on pp. 54-69. A discussion followed.

MEETING held on May 28th, 1888. The President in the Chair.

The minutes of the previous meeting were read and confirmed.

The Executive Committee nominated for election as a member Miss Frances Agnes Mason.

On the proposal of Professor Dunstan, seconded by Mr. Carr, Mr. Rowland Hamilton and Dr. Senier were appointed to audit the Treasurer's accounts.

Notice was given by Professor Dunstan and Mr. Carr that the following amendments to the Rules were proposed:—

Rule III.—Omit "three." After "Vice-Presidents," insert an "Editor." After "Committee," add "Every ex-President shall be a Vice-President."

Rule VII.—Before "Vice-Presidents," insert "three." After "Vice-Presidents," add "Editor."

Rule IX.—Add "by two Members appointed by the Society at a previous meeting."

New Rule: "Proceedings.—The proceedings of the Society in each Session shall be published. The Executive Committee shall form the Publishing Committee."

Professor Alexander Bain, LL.D., read a paper on—

THE DEFINITIONS OF THE SUBJECT SCIENCES WITH A VIEW TO THEIR DEMARCTION.

(This paper is published in "*Mind*" for October, 1888.)

[*Abstract.*]

Starting from the position that a science is an aggregate of kindred topics—that is, topics more closely related among themselves than they are to any others outside—he considered the best mode of securing this condition in the sciences of the subject world. There was a standing temptation among professors of any one science to

overstep its boundaries, from the desire of including some pet subject, to the consequent derangement of the unity of the science. A contrasting illustration was given from the position of Aristotle, who included in his grasp the whole circle of the subject departments, by which he was freed from the temptation to aggrandise one at the expense of another, and in point of fact, kept their several provinces distinct to a degree that was quite remarkable at his stage. The course to be pursued, as suggested by this example, would be to review the round of the subject departments by taking them in couples, namely, psychology-logic, psychology-ethics, psychology-philosophy, logic-psychology, these four couples being sufficient for the particular purpose of the paper, which was to isolate the topics most proper to make up a department of philosophy, as in a great degree synonymous in its present usage with metaphysics and ontology. As regards the treatment of the successive couples, the plan would be to fasten upon the most typical and universally received matters in each, and from these to shape a provisional text for judging of the admissions of the more ambiguous topics. In the exercise of this judgment the points in question would be doubly tested: being compared with the standard examples of both members of the couple, the comparative relationship would then be estimated under the most favourable circumstances. Thus, in the couple psychology-logic there was an ambiguous topic in the law of resemblance or similarity which seemed to come under both alike. Here, however, the difficulty would be met by distinguishing two different bearings of the principle—the one, consistency as the test of truth, and necessarily all-pervading in logic: the other, similarity as a process of the reproduction of thought, and falling exclusively to psychology. Under the couple psychology-ethics, the unequivocally ethical topic would be the standard of right and wrong, while the nature of conscience would be somewhat ambiguous, but would incline to psychology, when the purpose was to decide whether it was a simple or a compound faculty, and if compound to assign its constituents among the psychological elements. The stress of the final discussion lay between the couples psychology-philosophy, logic-philosophy, after surveying which a series of topics was arrived at more or less heterogeneous with the characteristic material of psychology, logic, and ethics, and thereby free to enter into the sphere of philosophy, having, moreover, on examination a sufficiently common character to give unity to that sphere. The questions of external perception, the priority of the particular and the universal in knowledge, the unity or duality of knowing and being, the relative and the absolute, the table and the unknowable, would be among the received topics.

of philosophy, being unsuitably placed in the other departments. There was a final issue of supreme importance in making up the sphere of philosophy, namely, whether it should absorb theism, in consequence of its supposed application in that region. Reasons were advanced for keeping theism wholly distinct from philosophy.

[Discussion followed.]

MEETING held on June 11th, 1888. The President in the chair.

The minutes of the previous meeting were read and confirmed.

Miss Frances Agnes Mason was elected a member.

The Secretary read the Report of the Executive Committee and the Financial Statement.

REPORT OF THE EXECUTIVE COMMITTEE FOR THE NINTH SESSION, 1887-1888.

In reviewing the course of the present Session, the Committee have the satisfaction of reporting that the Society appears to have maintained the advance noticed in their last Report, in respect both of its prospects as a Society, and of its efficiency as a Society for the systematic study of Philosophy. We have to lament the loss of one of our older members by death, and three others have withdrawn. Seven new members have been added, so that we now number 48 ordinary members as against 44 at the close of last Session. The average attendance of members at our meetings has been 12, of visitors, 6.

Of the two new features introduced during this Session, in accordance with the recommendation of our last Report, the *Symposia* have proved decidedly attractive and successful. Not only have the papers contributed been of a high degree of interest and ability, but they seem to have been fruitful in bringing opposite views into clear contrast, and initiating discussions of a most instructive character. The Committee are therefore of opinion that the *Symposia* should by all means be continued, and three evenings set apart for them in the ensuing Session.

The Committee wish to impress upon the members of the Society the importance of a more regular attendance. They think that the prosperity of the Society largely depends upon the degree to which individual members contribute, by their presence, to the animation of the meetings.

As topics for next Session the Committee venture to make the following suggestions:—

In Philosophy proper :

1. The Nature of Matter.
2. Do separate Psychological Functions require separate Physiological Organs ?
3. The Infancy of the Race and that of the Individual compared.
4. The Nature and Source of validity of Axioms.
5. Does Logic treat of the Laws of Reasoning, or of the Laws of Right Reasoning only ?
6. The Perception of Space question.
7. What is the Nature of Causal Action ?
8. Hegel's Philosophical Position.

In the History of Philosophy :

1. Comparison of the Ionian and Eleatic Schools.
2. The Greek Sceptics.
3. Geulinx and Occasionalism.
4. The Development of Monadology.
5. Papers on Systems or Personages belonging to the Divisions alluded to in the Report of last year.
Oriental Philosophies.
Greek Philosophy.
Alexandrine and Patristic Period.
Scholastic Period.
Renaissance Period.
Modern Period, down to Kant inclusive.

For Symposia :

1. The Nature of Force.
2. Can the Nature of a Thing be learnt from its History alone ?
3. What takes place in Voluntary Action ?

FINANCIAL STATEMENT.—9TH SESSION, 1887-8.

<i>Receipts.</i>	<i>Expenditure.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>
Balance brought forward	Rent of Room for Meetings	40 16 1	16 16 0
Subscriptions	Printing of Abstract of Proceedings ..	42 0 0	9 5 0
	Advertisements		4 6 6
	Postage and Stationery		1 12 8
	Small Expenses		1 10 0
	Balance in hand..		33 10 2
			49 5 11
			<u>£82 16 1</u>

Audited and found correct,
June 1, 1888.

ROWLAND HAMILTON.
A. SENIER.

On the proposal of Mr. Pasco Daphne, seconded by Professor Bain, the Report and Financial Statement were adopted.

The amendments to the Rules, of which notice had been given at the previous meeting, were proposed by Professor Dunstan and seconded by Mr. Carr. On being put to the meeting, they were unanimously carried.

A ballot was held for election of officers for the ensuing year. The following were declared elected :—

President.

Mr. Shadworth H. Hodgson.

Vice-Presidents.

Mr. S. Alexander.

Mr. Bernard Bosanquet.

Rev. E. P. Scrymgour.

Editor of the Society's Proceedings.

Professor W. R. Dunstan.

Honorary Secretary and Treasurer.

Mr. H. W. Carr.

The Society then adjourned until Monday, November 5th, 1888,
at 8 p.m.

A P P E N D I X.

RULES OF THE SOCIETY.

NAME.

I.—This Society shall be called “THE ARISTOTELIAN SOCIETY FOR THE SYSTEMATIC STUDY OF PHILOSOPHY,” or, for a short title, “THE ARISTOTELIAN SOCIETY.”

OBJECTS.

II.—The object of this Society shall be the systematic study of Philosophy; 1st, as to its historic development; 2nd, as to its methods and problems.

CONSTITUTION.

III.—This Society shall consist of a President, Vice-Presidents, an Editor, a Secretary (who shall be Treasurer), and Members. The Officers shall constitute an Executive Committee. Every Ex-President shall be a Vice-President.

SUBSCRIPTION.

IV.—The annual subscription shall be one guinea, due at the first meeting in each session.

ADMISSION OF MEMBERS.

V.—Any person desirous of becoming a member of the ARISTOTELIAN SOCIETY shall apply to the Secretary or other officer of the Society, who shall lay the application before the Executive Committee, and the Executive Committee, if they think fit, shall nominate the candidate for membership at an ordinary meeting of the Society. At the next ordinary meeting after such nomination a ballot shall be taken, when two-thirds of the votes cast shall be required for election.

CORRESPONDING MEMBERS.

VI.—Foreigners may be elected as corresponding members of the Society. They shall be nominated by the Executive Committee, and notice having been given at one ordinary meeting, their nomination shall be voted upon at the next meeting, when two-thirds of the votes cast shall be required for their election. Corresponding members shall not be liable to the annual subscription, and shall not vote.

ELECTION OF OFFICERS.

VII.—The President, three Vice-Presidents, Editor, and Secretary, shall be elected by ballot at the last meeting in each session. Should a vacancy occur at any other time, the Society shall ballot at the earliest meeting to fill such vacancy, notice having been given to all the members.

SESSIONS AND MEETINGS.

VIII.—The ordinary meetings of the Society shall be fortnightly, on Monday evenings, unless otherwise ordered by the Society. They shall commence in October or November, and end in June or July of each year. Such a course shall constitute a session. Special Meetings may be ordered by resolution of the Society or shall be called by the President whenever requested in writing by four or more members.

BUSINESS OF SESSIONS.

IX.—Before the close of each year the Society shall arrange a programme for the study of Philosophy in the two departments mentioned in Rule II. for the following session. At the last meeting in each session the Executive Committee shall report, and the Secretary shall make a financial statement, and present his accounts, audited by two members appointed by the Society at a previous meeting.

BUSINESS OF MEETINGS.

X.—Except at the first meeting in each year, when the President or a Vice-President shall deliver an address, the study of Philosophy in both departments shall be pursued by means of discussion, so that every member may take an active part in the work of the Society.

Each member shall, if possible, contribute a paper or otherwise initiate a discussion at least once in each session.

PROCEEDINGS.

XI.—The Proceedings of the Society in each session shall be published. The Executive Committee shall form the Publishing Committee.

BUSINESS RESOLUTIONS.

XII.—No resolution affecting the general conduct of the Society and not already provided for by Rule XV. shall be put unless notice has been given and the resolution read at the previous meeting.

QUORUM.

XIII.—No proceedings shall take place unless a quorum of five members be present.

VISITORS.

XIV.—Visitors may be introduced to the meetings by members.

AMENDMENTS.

XV.—Notices to amend these rules shall be in writing and must be signed by two members. Amendments must be announced at an ordinary meeting, and notice having been given to all the members, they shall be voted upon at the next ordinary meeting, when they shall not be carried unless two-thirds of the votes cast are in their favour.

**LIST OF OFFICERS AND MEMBERS
FOR THE TENTH SESSION, 1888-89.**

PRESIDENT.

SHADWORTH H. HODGSON, M.A., LL.D.

VICE-PRESIDENTS.

**S. ALEXANDER, M.A.
BERNARD BOSANQUET, M.A.
Rev. E. P. SCRYMGOUR, B.A.**

EDITOR.

PROF. WYNDHAM R. DUNSTAN, M.A.

HONORARY SECRETARY.

H. W. CARR, 22, Albemarle Street, W.

CORRESPONDING MEMBERS.

		Date of Election.
DAVIDSON, THOMAS, Orange, New Jersey, United States..	..	Nov. 12th, 1883.
HARRIS, WILLIAM T., LL.D., Concord, Mass., United States ..	..	Dec. 19th, 1881.
JAMES, Prof. WILLIAM, M.D., Cambridge, Mass., United States ..	..	Feb. 5th, 1883.

MEMBERS.

ALEXANDER, SAMUEL, M.A., Vice-Pres., Lincoln College, Oxford	April 13th, 1885.
BAIN, Prof. A., LL.D., Aberdeen	Jan. 7th, 1884.
BLACKER, CARLOS, 12, Sussex Gardens, Hyde Park Square ..	Nov. 22nd, 1886.
BOSANQUET, BERNARD, M.A., Vice-Pres., 131, Ebury Street, S.W.	Nov. 22nd, 1886.
BROOKEBANK, Mrs. BRABECK, 7, Chester Place, Regent's Park, N.W.	Nov. 17th, 1884.
BUTCHER, Prof. S. H., M.A., 27, Palmerston Place, Edinburgh..	Dec. 10th, 1883.
CARR, H. W., Hon. Sec. and Treas., 60, Josephine Avenue, Brixton, S.W.	Dec. 19th, 1881.
CATTELL, J. M., M.A., Ph.D., St. John's College, Cambridge ..	Nov. 22nd, 1886.
CHANDLER, Rev. A., M.A., Brasenose College, Oxford	Feb. 8th, 1886.

COOK, E. WAKE, 41, Grove Road, St. John's Wood, N.W.	..	Jan. 24th, 1887.
CONYBEARE, F. C., M.A., University College, Oxford	..	Nov. 22nd, 1886.
DAPHNE, P., LL.B., 6, Canonbury Park South, N.	..	Jan. 7th, 1884.
DUNSTAN, Prof. W. R., M.A., <i>Editor</i> , 17, Bloomsbury Square, W.C.	..	April 19th, 1880.
FENN, Rev. CHRISTOPHER G., M.A., 3, Belmont Villas, Wallington, Carshalton	..	Nov. 22nd, 1886.
GREECE, C. J., LL.D., Redhill, Surrey	..	Oct. 9th, 1882.
HALDANE, R. B., M.A., M.P., 10, Old Square, Lincoln's Inn, W.C.	..	March 19th, 1883.
HAMILTON, ROWLAND, 3, Tenterden Street, Hanover Square	..	Nov. 22nd, 1886.
HANDLEY, Miss M. S., 120, Edith Road, West Kensington, W.	..	Nov. 21st, 1881.
HODGSON, SHADWORTH H., M.A., LL.D., <i>President</i> , 45, Conduit Street, W.	..	May 18th, 1880.
HOLLANDEE, BERNARD, Unionist Club, Pall Mall, S.W.	..	Jan 9th, 1888.
HUGHES, A., B.A., St. John's College, Oxford	..	May 10th, 1886.
LAKE, A. F., 20, North Road, Clapham Park, S.W.	..	Dec. 19th, 1881.
LIGHTFOOT, Rev. J., M.A., D.Sc., Cross Stone Vicarage, Todmorden.	..	March 5th, 1888.
MACDONALD, W., Kenrick Villa, Worsley Road, Hampstead, N.	..	Nov. 21st, 1887.
MANN, J. S., M.A., 6, Blandford Square, N.W.	..	Nov. 22nd, 1886.
MASON, Miss FRANCES A., 31, Upper Baker Street, W.	..	June 11th, 1888.
MASSEY, C. C., Athenaeum Club, S.W.	..	Dec. 10th, 1883.
MOORE, Rev. Canon AUBREY L., M.A., 2, Keble Road, Oxford	..	Nov. 16th, 1884.
MUKHARJI, SIV NARAYAIN, Uttarpara, near Calcutta	..	March 21st, 1887.
OGILVIE, A. M., 7, Sheffield Terrace, Kensington, W.	..	Jan. 9th, 1882.
PHILPOT, Rev. W. B., M.A., South Bersted Vicarage, Bognor, Sussex.	..	Jan. 7th, 1884.
PLUMPTRE, Miss C. E., 36, Hamilton Terrace, N.W.	..	Nov. 3rd, 1884.
QUELCH, R. J., 66, Bromfelde Road, Clapham, S.W.	..	Nov. 21st, 1887.
RHODES, E. H., B.A., 11, Norfolk Road, St. John's Wood, N.W.	..	Jan. 17th, 1881.
ITCHIE, D. G., M.A., Jesus College, Oxford	..	Nov. 16th, 1885.
ROGERS, J. D., M.A., B.C.L., 1, Stone Buildings, Lincoln's Inn	..	Nov. 22nd, 1886.
ROMANES, G. J., LL.D., F.R.S., 18, Cornwall Terrace, Regent's Park, N.W.	..	April 13th, 1885.
SCRYMGOUR, Rev. E. P., B.A., Vice-Pres., Parsonage, St. John's Wood, N.W.	..	May 9th, 1881.
SENTER, A., M.D., Thornfield, Harold Road, Upper Norwood, S.E.	..	April 19th, 1880.
SMITH, ARTHUR M., Junior Carlton Club, S.W.	..	Nov. 7th, 1887.
SORLEY, W. R., M.A., Trinity College, Cambridge	..	Nov. 22nd, 1886.
STOUT, G. F., M.A., St. John's College, Cambridge	..	Nov. 21st, 1887.
TURNILL, HENRY, 3, Vernon Chambers, Southampton Row, W.C.	..	Dec. 20th, 1886.
VICARIE, FRAMJEE B., Barrister-at-Law, High Court of Justice, Bombay	..	Nov. 22nd, 1886.
WHITE, G. B.A., LL.B., 2, Garden Court, Temple	..	July 18th, 1881.
WHITTAKER, T., B.A., 38, Avenue Parade, Accrington	..	Jan. 26th, 1886.
WILLIAMS, S., 14, Henrietta Street, Covent Garden, W.C.	..	Jan. 7th, 1884.
WILLIS, J. G., B.A., Board of Trade, 1, Whitehall, S.W.	..	Feb. 6th, 1888.

ARRANGEMENTS FOR THE TENTH SESSION, 1888-89.

1888.

Nov. 5.—President's Address, "Common Sense Philosophies."
 „ 19.—S. Alexander, M.A., V.P., "The Growth and Progress of Moral Ideals."
 Dec. 3.—Symposium, "Can the Nature of a Thing be learnt from its History alone?" The President, Messrs. F. C. Conybeare, M.A., and G. F. Stout, M.A.
 „ 17.—G. J. Romanes, M.A., LL.D., F.R.S., "The Doctrine of Moral Responsibility."

1889.

Jan. 14.—M. H. Dziewicki, "The Starting Point and First Conclusions of Scholastic Philosophy."
 „ 28.—Prof. Bain, LL.D., "The Empiricist Position."
 Feb. 11.—Rev. E. P. Scrymgour, B.A., V.P., "Hegel's Philosophical Position."
 „ 25.—
 Mar. 11.—Symposium, "What takes place in Voluntary Action?" B. Bosanquet, M.A., V.P., P. Daphne, LL.B., J. S. Mann, M.A., A. M. Ogilvie.
 „ 25.—Bernard Bosanquet, M.A., V.P., "The Part played by Ästhetic in the Growth of Modern Philosophy."
 April 8.—F. C. Conybeare, M.A., "The Alexandrine and Patristic Period of Philosophy."
 „ 29.—
 May 13.—Siv N. Mukharji, "Indian Philosophy."
 „ 27.—G. F. Stout, M.A., "The Development of the Distinction between the Physical and the Mental, considered from a Psychological Point of View."
 June 17.—Symposium, "The Nature of Force." Prof. Bain, Prof. Dunstan, Dr. G. Johnstone Stoney, F.R.S.
 July 1.—Annual Meeting for Business.

The Meetings of the Society are held at 22, Albemarle Street, London, W.,
at 8 p.m.

NOTE.—Members who wish to contribute papers at any of the meetings should announce their intention as soon as possible to the Honorary Secretary. Contributions are invited on subjects of philosophical interest other than those suggested in the Report of the Executive Committee (see p. 88).

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PAPERS READ BEFORE THE SOCIETY

DURING THE SESSION 1889-90.

COMMON-SENSE PHILOSOPHIES.*

*By SHADWORTH H. HODGSON, Hon. LL.D. Edin., Honorary Fellow of
Corpus Christi College, Oxford; President.*

I.

PERHAPS the most useful function of the Annual Addresses, which our rules require to be delivered at the beginning of each recurring Session, is to recall the high general purpose and scope of Philosophy, to concentrate our thoughts anew upon its distinctive method, and thus, as it were, to strike the key-note and re-awaken the dominant spirit which should animate and govern the discussions of our ensuing meetings. It is with this idea that I propose this evening to enlarge upon a topic, which I do not now broach for the first time, but which I have not hitherto had an opportunity of developing; I mean the relation which philosophy bears to the common-sense view of the universe, and to those methods of philosophising which are founded upon it, by the assumption that it supplies us with facts which are ultimate as well as self-evident, that is, with facts which are capable of furnishing an explanation, without requiring one themselves.

As a merely preliminary description of the subject I would say, that the common-sense view of the universe may be briefly described as that which regards it as consisting of Persons and Things; and that by a common-sense philosophy I understand one which bases a system of the universe upon objects belonging to one or both of these classes, or upon some power or powers essential to their nature, without adequate analysis of the object or objects thus selected as the foundation of the system.

The restriction *without adequate analysis* is all-important. No

* The Presidential Address delivered at the Opening Meeting of the Tenth Session, November 5th, 1888.

one denies the reality either of persons or things, unless it be, by necessary implication, some of the common-sense philosophies themselves. The whole question depends on their due analysis. If, after due analysis, either the one or the other should be found to offer a real explanation of the universe as a whole; if, after passing as it were through the crucible of subjective scrutiny, they should emerge as indissoluble and self-existent entities, creators or sustainers of all other known forms of being; then they would be entitled to rank as the central facts, not of a common-sense philosophy, but of philosophy simply. In other words, the title of common-sense philosophy would wholly sink and disappear; common-sense philosophy would be the truth. This is a question which no one can pretend to settle beforehand, or without inquiry, one way or the other. It is entirely a question of analysis, and the indictment latent in the term *a common-sense philosophy* can only be supported if the philosophy, when asked what is the real nature of that which it puts forward as the basis of its explanation (a question which can only be answered by analysis), has either no answer to give, or one which is inadequate or faulty.

Now, there is but one philosophy, just as there is but one universe and one mankind. There is nothing arbitrary in the methods and forms of thought, by and under which mankind will ultimately come to conceive of the universe; in the arrangement and disposition which it will ultimately make of its objective thoughts representing the universe as their object thought of; in the solutions which it will ultimately either acquiesce in as final, or reject as unattainable, or hold provisionally as possible or probable. Agreement in the general outlines and structure of our *Rationale of the Universe*, be our system of it more or less adequate, complete, and exact, is in the end inevitable. Experience, which is common to all alike, exercises a harmonising power over the thoughts of men in philosophy no less than in science. Only as the domain is larger and the phenomena more complex, being taken subjectively and objectively at once, and as the interests involved are more precious, being moral and religious as well as simply intellectual, so also the time required for effecting the harmony must be longer, and the conflict of opposing views and systems more obstinate and fluctuating.

For nothing which human fancy can dream, or thought surmise, or language symbolise, can be left out of the Entirety at once objective and subjective which we call the Universe, and consequently nothing can be excluded from that subjective picture which we aim at making its counterpart, and name Philosophy. The task of framing it is the task of showing what and how to think concerning all the deepest and most perplexing questions which can present themselves,

as well as concerning the simplest and plainest. The totality in the scope of philosophy is essential to its nature. Withdraw but a single province from its purview, and its right to exist as a separate pursuit is logically gone. And why? Because the subjective aspect, that is, our knowledge, our feeling, our consciousness of things, which is philosophy's special domain, is one undivided aspect of the whole. The subjective aspect is necessarily an aspect of the whole. In thought the universe is one. An inquiry into a part detached from the rest can be a science only, not philosophy. To treat of things *minus* the question of the reality of Matter, or *minus* that of the reality of God, would be to substitute for the single subjective aspect of the Entirety a series probably arbitrary, certainly incomplete, of objective departments. Theology, no less than Physics, comes within the purview of philosophy, and cannot be omitted from our subjective survey of the universe; though the places which they hold in that survey, and the relations which connect them with its other provinces, are from the nature of the case extremely different.

The history of philosophy combined with that of religion shows us, that Religions which exist or have existed in the world are among the fertile sources of common-sense philosophies. Religions exist by and for great masses of mankind, are nourished by their feelings and moulded by their ideas. Consider what is meant by the existence of a religion. It means that a vast number of men are intimately and powerfully affected by, and interested in maintaining and practically enforcing a certain set of emotions and actions embodied in a certain set of ideas which have grown up with them in close reciprocal organic unity; and moreover that this organic system of ideas, emotions, and actions lays claim, as a religion, to universal and unconditional validity and supremacy over mankind. Consequently it cannot be, but that the more active and intellectual among the disciples of a religion, especially when brought into contact with other religions or other modes of thought, should aim at justifying, both to themselves and others, their own religious system, notwithstanding that, like the rest, it is framed upon ideas which are the current and common property of great popular masses. This justification, however, is an appeal to philosophy; and thus there enters into the arena of philosophical discussion and controversy a new system embodying and supporting conceptions not originally philosophical. In other words, a common-sense philosophy puts in its claim to be the truth, to be philosophy simply, to the exclusion of other claimants, and in the interest of a particular religion.

Now it is perfectly true that philosophy cannot possibly refuse to entertain the appeal so made, as I think will be evident from what I have already said. It cannot hold, either that it has no jurisdiction

or that the new claimant has no *locus standi* in its courts. Philosophy is the minister and exponent of reason, and must endeavour to bring into harmony whatever is true, wherever found, and to reject or remodel whatever is incompatible with truth, whether in an already recognised or in a newly propounded system. The very prerogative of philosophy is, that it is interested for no pre-conceived conclusion, but for the truth simply, as it shall declare itself on the fullest and most patient investigation. On the other hand, it is the prerogative of the true religion, that it has no philosophy of its own, or specially retained on its behalf; there is, for instance, no such thing as a Christian Philosophy. Philosophy itself is necessarily Christian, if Christianity is the true religion. Philosophy simply, without pre-conceptions, is the very philosophy to which appeal is made, when seeking philosophical justification for its tenets. Nor can philosophy avoid or escape from this result. It is pledged beforehand to no pre-conception but the truth. Unless it were at once independent of the particular system and pledged beforehand to truth alone, it could give no support at all to that which appeals to it for justification.

I am far from saying that philosophy, as it exists at the present day, is in a position magisterially to give or withhold support, to or from any of the more important particular philosophies which are now rivals for the title of the true philosophy. It is philosophy as it ought to be, and as it some day assuredly will be, that I have been describing, not philosophy as it actually is. Philosophy has yet to win that unified state and structure, which science has to a great extent already won. Before that day can dawn, the various rival systems, and the various conflicting pre-conceptions which are the source of systems, as we see them now filling the arena of controversy, and which together constitute philosophy as it actually exists, must have given place to some universally admitted purpose, some universally admitted method, some universally admitted definitions, and some universally admitted arrangement or inter-relation of conceptions—the whole being held together in organic and systematic union. Not till then can philosophy be spoken of as one organic whole, as science can; not till then do we possess philosophy, we possess but philosophies. Among these, the group which I have called common-sense philosophies is our theme this evening. Let us see to what it is that their origin is due.

Those who wake to philosophy at all wake to it from a world of experience, in which all things seem ready-made, and in action upon and with each other. It is a world containing men and other animals, trees and plants, land and water, air and sun-light, sun and moon, day and night, stars and planets, natural forces, human and social relations, families, friends, enemies, and other things innu-

merable unless at the cost of transcribing the dictionary. This world we call the every-day or common-sense world. It is the *terminus a quo*, the $\pi\rho\tau\epsilon\rho\nu\pi\rho\circ\eta\mu\alpha$, the *explicandum* or problem of philosophy. The question of philosophy is—What to think of this world, and how to reduce it to intelligible order. Philosophy has not to be the world, or to *make* the world. It has simply to *understand* it.

You will observe that I have briefly described the common-sense world as it may be supposed to present itself to the non-scientific mind. But the problem of philosophy is not altered if we suppose the world understood as science understands it, with its phenomena and its forces scientifically classed and analysed, arranged in true relations, and referred to the general laws which can be discovered to prevail among them. With all this the problem distinctive of philosophy is still not entered on nor touched. If possible, the world is more wonderful, more urgently craving for an explanation than before. Its character, as a world consisting of ready-made objects in action upon and with each other, is not affected in any way by the new forms and shapes into which those objects have been thrown by their scientific explanation. The questions, what we are to think of this world, and how reduce it to intelligible order, remain just as imperious for the new scientific, as they were for the old non-scientific world. Both alike are worlds of ready-made objects in action upon and with each other; and that is the thing to be explained. Science has dealt with and reduced to order the world of Nature, taken as a world of real objects; philosophy has to deal with our knowledge of that world, and say what is the meaning of *Reality* itself.

Now there is one most prominent feature in all common-sense knowledge, and that is its intensely practical character. The practical man and the man of common-sense are all but identical, and the terms all but synonymous. Common-sense knowledge has been acquired, both by individuals and by the race, tentatively, step by step, and under the guidance of practical wants and wishes. What will help us or hurt us, that we attend to. Merely speculative enquiries we postpone to the Greek Kalends. The effect of things upon ourselves is what we seek to know concerning them. Things which abound with such effects we consider real, that is, real for us, real for our purposes. Things which do not so abound are for our purposes unreal, phantoms of the mind, ideas, or fancies. Hence we judge things, in common sense, solely by what they do. The things are not distinguished from their effects. They and what they do are one. Fire is that which burns; water is that which wets; wind is that which blows; earth is that which sustains. Thus the practical direction unavoidably impressed upon our thoughts by nature leads

us unawares to a mode of thinking which, when we become aware of it, we must describe as identification of things with their operation.

Common language moreover is the expression of common sense, that is, of thought in its pre-philosophic stage, and enforces its ideas in communicating them; gives currency to its prejudices irrespective of their truth or falsity; embalms its blindnesses as well as its insights. And this circumstance renders the task of philosophy doubly hard, inasmuch as language is the only instrument which men can use in common, for disentangling that very maze, and analysing those very conceptions, of which their instrument itself is the expression and embodiment.

A reality, then, in common sense, is *that* which operates in such and such ways, has such and such powers, puts forth such and such effects. And this identification being so laid at the basis of our thought, the moment we superinduce upon it a distinction between that which operates and its operation, or the effect which it produces, we are presented with the principle of causality. The *that* which operates, otherwise unknown, is conceived as a Cause, or causal agent.

Common sense, however, can hardly be said itself to draw this latter distinction. It does not set up the *that* which operates, as an entity contradistinguished from its operation. It were to consider too curiously for common sense to consider so; and would in fact reverse and contravene its characteristic difference as common sense. From the idea of concrete operative realities, it does not go on to the idea of abstract operative realities, real entities which are not operations but causes of them. The distinction in question, and the idea of real but abstract causes of operations, are a solution attempted, by a rude philosophy, of the problem presented by the common-sense idea of things and their operations being identical. Common-sense knowledge presents the *explicandum* for which philosophy in its initial stages proceeds to offer an *explicatio*, namely, its conception of causal agents, at once real and abstract. This conception, based on the common-sense idea of the identity of a reality with its operation, is one mark, one weapon, one prized and valued possession of common-sense philosophies. It is a conception which is fundamental in Scholasticism, and fundamental also in the system of Spinoza. The true way of dealing with, and so issuing from, the crude common-sense identification of a thing with its effects lies in distinguishing which properties of the concrete thing we will single out, for the purposes we may have in hand, as its effects, and which we will consider, for the same purposes, as constituting the thing itself; thus proceeding by way of analysis and definition. Here, however, is not the place to enlarge upon this method.

But the foregoing is not the only way in which the idea of

common sense, that things and their operation are identical, gives rise to common-sense philosophies. Simply adopting the idea as true, simply assuming its truth, without adverting to the insecurity attaching to it in virtue of its practical origin, is to carry it forward from common sense into philosophy, and make it into a philosophical tenet. The world of common-sense realities is thereby transmuted in philosophy into a world of absolute realities, that is, realities which we are precluded from analysing, in knowledge, into what they are on the one hand and what they do on the other. They become the unanalysed ultimates of philosophical investigation, which it remains for us only to classify and systematise according to their supposed effects. In short, the main question of philosophy —What reality means?—is thereby answered as soon as asked, and philosophy itself reduced to be a kind of general science, *minus* scientific exactitude. It is moreover obvious, that the disputes about the true classification and nomenclature of realities and their effects will, in such a philosophy, be endless, with hardly a chance of leading to profitable results, seeing that the definitions given of them will not be subject to the control of analysis.

The main division of realities in such a philosophy will clearly be either into mind and matter, or, the same slightly varied, into persons and things. Matter or things will give comparatively little trouble; the physical sciences, with biology, will take charge of them. It is mind and persons that will be troublesome. Psychology is the scientific province under which they would naturally come. But what are the relations of common-sense philosophy to psychology? If common-sense philosophy is truly described as a sort of general science *minus* its exactitude, it will become, on entering the province of psychology, a sort of rival psychology, only hampered by the inability of distinguishing what a mind is, or what a person is, from what it does, suffers, or performs. A mind, let us say, is that which knows; a person that which knows itself, whatever else it knows. If then, the function or operation is indistinguishable from the agent performing it, both mind and person must be synonymous with knowing, and mind and person as *agents* vanish into nonentity. Yet, unless they are taken as agents, how can they be held to be absolute and ultimate realities? Is knowing *per se* the only reality known? That is far from being the meaning of most common-sense philosophies.

By assuming the truth of the common-sense idea, that a thing is indistinguishable from what it does, and thus raising that idea to philosophical rank, common-sense philosophy has got into a *cul-de-sac*, from which only regress is possible. Instead of making the dicta of common sense absolute, what has to be done is to endeavour to

retrace the steps, unravel the complicated courses, by which common sense arrived at its dicta in the first instance, under the influence of its practical tendency. Instead of taking mind and matter, or persons and things, as realities immediately known, and yet known immediately by what they do and not by what they are, which is virtually assuming them to be unknown realities, while holding them at the same time to be immediately known, it is necessary to take up the question in the really philosophical way, that is, on its subjective side, and ask *what* these things, called provisionally mind and matter, persons and things, are really *known as*; what is immediately known of them, and what mediately and inferentially? In other words, the analysis of our knowledge of things must be undertaken.

Realities as they are, they are yet not wholly objects of immediate knowledge, but partly of inferential. They are what I have elsewhere called "remote" objects of perception, objects the perception of which implies a series and a combination of many immediate perceptions, though, when once we have become familiar with the class of objects to which they belong, the immediate perception of one of the contributory elements is so rapidly combined with the redintegration of the rest, that the perception of the whole remote object is all but instantaneous, and therefore appears to be immediate also. When, for instance, I see a tree, what I see immediately is a certain coloured expanse, but what I seem to see immediately is the tree itself as a solid object. Before I can see the tree in that way, I must have had many and many a perception of sense arising from trees; and the reality of the trees from which they arise is an inference.

So also it is with my perception of myself. Before I can perceive myself as a reality, I must have had many and many perceptions in combination, and have perceived them to be in combination also. All my perceptions and other states of consciousness, present, remembered, anticipated, and in combination as states of consciousness, are my perception of myself; and here, again, the reality of myself, from which they arise *a parte Subjecti*, is an inference. Yet I seem to have an immediate perception of myself, owing, just as in the case of the tree, to the rapidity with which I refer any given state of consciousness to my remembrance or anticipation of others. There are, in fact, two kinds or cases of immediateness, one real and one apparent, one the immediateness of single presentations, the other of "remote" objects of perception. And the immediateness of the ultimates of common-sense philosophies, of mind and matter, of persons and things, is an immediateness of the latter kind.

When Kant stated the question, *How is experience itself possible?* as the initial question of philosophy, he had primarily in view the

experience of the world of common-sense objects, which is the $\pi\rho\acute{\tau}\epsilon\rho\nu \pi\rho\acute{\tau} \eta\mu\acute{\alpha}$ when we begin to philosophise; but his answer to this question involved a *petitio principii*, being based upon the assumption of a common-sense object over again, one of the very class of objects the possibility of which was in question. For he assumed a transcendental agent as the Subject of that experience, which agent was but the empirical self or person differently placed—I mean imagined to exist prior to, instead of in, experience. The question is thus not answered, nor even evaded, but directly begged. The unanalysed ultimate of common sense, the empirical Ego, is unanalysed still, though now conceived as noumenal and transcendental, instead of empirical. *What the Ego is known as* is a question which remains unanswered. And it is clear that it cannot be answered by an hypothesis, but can be answered by analysis alone. In virtue of the answer which Kant gives to his own initial question, we cannot avoid classing his system among common-sense philosophies, remote as transcendentalism may seem from those forms of common sense which are most familiar in this country.

I must now advert once more to a distinction drawn above, a distinction of the greatest importance. Common-sense experience is one thing, and experience, as it actually comes to us, is another. The latter is *πρότερον πρὸς ἡμᾶς* in a very different sense from the former. Common-sense experience is the *πρότερον πρὸς ἡμᾶς* of philosophy; experience, as it actually comes to us, is the *πρότερον πρὸς ἡμᾶς* of knowledge altogether, being the material out of which all reasoned knowledge, as well as all common-sense experience, is built up. In philosophy we have to analyse the latter into the former—that is to say, common-sense experience into its elements, which can be found only in experience as it actually comes. This it is which contains the *data* of all our philosophy.

In philosophy we have to deal with this material, the content of experience as it actually comes to us, in a twofold way. We have, first, to analyse its actual process-content; and, secondly, to trace the laws under which its actual process-content acquires the structure which is our knowledge of the common-sense world; and our experience of the common-sense world acts as our test at the end of our philosophising, just because it is our *explicandum* at the beginning of it. We have to give back common-sense experience analysed, known, and brought under uniform laws. The laws of thought, as well as of perception, have to be traced in experience as it actually comes to us, which contains all our data of every kind, provided those data are in the form of consciousness, not of objects as distinguished from consciousness. Attention to this proviso is essential. A datum means a state of consciousness. When we have recourse to objects as dis-

tingnished from consciousness for an explanation of any part of, or sequence in, consciousness, we are then and there passing over from philosophical analysis to psychological hypothesis. The structure which we have to trace is a selection and synthesis of data, but that selection and synthesis are themselves included in the whole material which we are analysing.

It would be a mistake to suppose that in this analysis, which in some sort is tracing the genesis of common-sense experience, we need go back, or even that we could go back, to the beginning of an individual's life, or to that of the race. It is not the genesis but the mode of genesis of common-sense experience that we are tracing. It is no question of history or of evolution which lies before us. The data contained in experience as it actually comes are data in our own experience now, side by side, or rather involved, with the common-sense experience which we have previously acquired and now possess. We have, purposely and by attention, to separate the one from the other. In doing this it may help us, perhaps, to figure to ourselves an individual having all his experience still to acquire, and then imagine it accumulating and getting organised step by step; but this supposition can be no more than an artifice, instrumental in rendering our thoughts clear to ourselves or others. The process which we actually go through, here and now in present consciousness, is the process from which our conclusions must be drawn. It is this which contains our real data. We may then apply our conclusions, *mutatis mutandis*, to the infancy of individuals or of the race; in doing which we should be deducing the actual genesis from the general case, or mode of genesis, which our analysis of our own present experience would have furnished.

The one great fallacy which vitiates common-sense philosophies may be summed up in the one word *Empiricism*. Common sense is thoroughly empirical, but common sense is not therefore fallacious. When its empirical method and empirical ideas are carried over into philosophy, when they are adopted and insisted on as philosophical, then it is that their fallacy begins, because, being employed for a new purpose, the discovery of truth, they are employed in a new connection and with a new meaning, which they were never intended to bear. Empiricism is the antithesis of philosophy, and common-sense philosophies are empirical. Experience and the empirical interpretation of it are incompatible rivals for the office of serving as the foundation of philosophy. The philosophy of experience, if the term is rightly apprehended, is thus the very contradictory of the philosophy of empiricism.

The instance in which empiricism in philosophy is most fatal, because most fundamental and comprehensive in its effects, is that of

the Subject of consciousness. The empirical idea of a self-conscious being or person is an idea including three things rolled into one, the self knowing, the self known, and the knowing (or consciousness) of one by the other, without pausing to ask *what* knows, *what* is known, or *how* the knowing takes place, whether immediately or inferentially. *Self* is the sole answer of empiricism to all three questions. Self is knower, known, and knowledge, all at once in one immediate moment of consciousness, and one indivisible being. Each of the three moments is made to guarantee the reality and the truth of the other two. Together they are taken as an ultimate source of action, and an ultimate source of knowledge, which sets analysis at defiance, and imposes *a priori* its type of conception upon all experience. A faculty of intuition is sometimes called in to explain how it is that we are immediately aware both of a content of consciousness and that this content is self; the latter fact being plainly inferential, apart from an intuition to the contrary. But on what can such a faculty of intuition be based, what is the evidence for it? It is based on the reality of the Self, and the evidence for it is the self-consciousness which it is called in to justify. It is but another additional factor in the same system of reciprocal guarantees.

I conclude then, that, while Personality is an excellent thing, the highest thing we know of, in the department of common sense, it is an obstruction if used as an explanation in philosophy. Explanation cannot be based upon anything which itself stands in need of explanation, and least of all upon anything which repels the first condition of explanation—analysis. One of the first duties of philosophy must be to analyse our conceptions of the mind, the self, the Subject, personality, self-consciousness, and so on, and confront them with the facts revealed by experience as it comes to us; and for this purpose to call attention, as I now once more do, to the ambiguity latent in all the names which we employ to designate them. The ambiguity consists in their covering two distinct kinds of facts, consciousness *per se* on the one hand, and the agent or agency employed in consciousness on the other. However closely in fact the two things are involved in one another, they are distinct in thought and in conception. This distinctness must be fairly faced, and proof must be given that the two things distinguished are necessarily and eternally united, before their union can be used as an ultimate origin or source of explanation.

This process is dispensed with in common-sense philosophies, and the terms consequently remain ambiguous. The term *mind*, for instance, can be and is taken to mean at one time the agent as distinguished from consciousness, at another consciousness as distinguished from the agent, at another consciousness and agency as one. And often

it means one thing in the premisses, and another in the conclusion, of the same argument; one thing for the hearer and another for the speaker; or now one thing and now another for both speaker and hearer indifferently. The immateriality of mind as agent is not unfrequently deduced from the immateriality of mind as consciousness. It is no doubt indisputable, as a fact of inference, that some real Subject of consciousness is requisite as the proximate condition of consciousness arising. But it does not follow that this Subject is immaterial, because the consciousness dependent on it is so: nor, again, that it is generically different from all other known objects of the natural world, because consciousness is unique as the subjective aspect.

Usually, I think, the word *mind* suggests most readily the agent or real condition, and the word *I* consciousness. In self-consciousness, expressed by *I*, we have what the agent when functioning is known as. Self-consciousness is objective thought, the agent being the object thought of. In subjective analysis simply (occupying my Rubrics A and B), the former belongs to the subjective aspect of things, the latter to the objective. In psychology (which comes under my Rubric C) the former is the effect of the latter, and the latter the real condition or agent of the former. The consequence of confusing these distinctions is, that we imagine ourselves to have an immediate knowledge of what the Subject as an agent is, a piece of knowledge which we cannot really obtain, without first separating in thought the agent from its consciousness, in the character, not of its object, but of its real condition. This is a special, and the most important, case of the general fallacy characteristic of common-sense philosophies, namely, the confusion, by which I mean identification without prior distinction, between the nature of objects and the energy which makes them what they are and displays itself in them.

II.

It remains to consider the classification of common-sense philosophies on the basis of this characteristic. They fall primarily under two main heads: philosophies of Matter, including Force and Motion, and philosophies of Mind, according as one or the other is taken as the absolute and ultimate existent, from which the remaining phenomena can be deduced. Philosophies of Mind may again be sub-divided, according as they build upon one leading mental function or upon another, selected as the most fundamental. Will and Thought are instances of such selected functions. Besides these, a main head may be distinguished, in order to comprehend

philosophies which depend on the combination of conceptions belonging to the two former main heads or sub-divisions. The hypothesis, for instance, that every atom of matter is gifted with some degree of sentience, however faint, so as to form a double-charactered entity, sometimes called Mind-stuff, out of which the universe is formed, and from which its more complex structures and their powers are evolved, would be one kind of hypothesis, not by any means the only one, falling under our third head.

The first of the three main heads need not detain us long. Philosophical materialism pure and simple is not much in vogue at the present day. The perception that philosophy, whatever else it might be, must at all events be subjective, or an examination primarily into our knowledge of things, as the only sure means of ascertaining their real nature, has usually been felt to involve abandoning the hypothesis, that Matter can be known as the self-existent source of all things. Whatever is composite in structure naturally suggests the question, why or how that particular structure came to exist, seeing that alternative possibilities are open to the imagination. Nothing composite, therefore, can be regarded, without positive proof, as necessarily existing in itself, and still less as the ultimate explanation of other things. But such a positive proof is not readily attainable. Matter may be, and probably is, the ultimate fact or basis of deduction for all our positive knowledge of the genesis, history, and evolution of nature; but this is a very different thing from being self-conditioned or necessarily self-existent.

And even if it were assumed to be so, still there would be one undivided half of the whole field of phenomena, the subjective half or aspect of things, which Matter, however highly organised, is, at least in our present state of knowledge, quite powerless to account for. Sentience or consciousness, in all its forms and degrees, is not to be deduced from any known or imagined form or function of matter. Given the fact of sentience, given the existence of sentience *in rerum natura*, then indeed its appearance in this organism or in that, under these circumstance or under those, and in definite modes, qualities, and intensities, may be referred, with great and ever-increasing minuteness and exactitude, to definite conditions in material organisms and their material environment. But still the *nature* of sentience or consciousness is a fact wholly undeduced from matter. In other words, supposing us to have fully admitted that sentience arises solely in dependence upon some form or forms of movement in organic matter, yet, seeing that the two things which stand in this relation, sentience and matter, are totally heterogeneous, the existence of the relation itself still remains to be accounted for. It is only the existence, *as distinguished from the nature*, of sentience that

s accounted for by the relation. And thus the relation, supposing it to have been established, would be good as an ultimate explanation of psychology, which is science, but can be no ultimate explanation of metaphysics, where sentience, taken simply as a *virtus*, is an ultimate fact.

It is an unbridged chasm, so to call it, between matter and consciousness - partially bridged when we approach it from the side of consciousness. Matter cannot explain why there should be sentience or consciousness, still less why there should be knowledge. But consciousness can at least explain what we know of matter. What matter is it can partly set forth, though not how or why it came into existence. Still it partially bridges the chasm, which matter on its own leaves wholly unbridged. The knowledge of the universe of matter includes a knowledge of matter, though powerless to create it, and in that knowledge can state alternatives which give matter an appearance of contingency, notwithstanding that it is the first cause, and condition, of which we have positive and verifiable knowledge.

The prerogative of consciousness it is which secures the predominance of philosophies of mind, philosophies belonging to the second head of our main division. Common-sense philosophies of mind are all of them theories which attribute creative and directive power to consciousness endowed with agency or agencies whose function can only be defined as a mode of consciousness. We are assumed, and implicitly assumed, to know what is meant by sentience, consciousness, thought, reason, will, and so on, and then, by the common-sense or empirical fallacy, these are endowed with active power, without proof even that they are in their nature capable of possessing it. It is assumed, without analysis, that they cannot exist unless on the instance of some specific agency, the definition of which is drawn wholly from themselves, and which is specifically appropriated to delineate them.

Philosophy has the existence of an ordered world of realities, the world of common-sense realities, to account for. If mind is to afford an explanation of the existence of such a world, it must plainly be reality itself. This it certainly appears to be in common-sense experience, and this accordingly it is assumed to be by common-sense philosophies, in search of an explanation. Their view is this. As a human mind stands to its limited sphere of knowledge, and to its limited sphere of actions and products, so, it is held, an infinite mind stands to the infinite sphere of knowledge, actions, and products, which we call the Universe. The nature and powers of Mind are thus the basis of theories belonging to this head. Is it then so certain, that a specific agent of the immaterial kind intended

really exists, or that what we call our mind is a real and specific agent?

That consciousness apart from agency affords no explanation is clear. For consciousness in the first place is intermittent, and in the second place is to a great extent unordered and irregular, as it actually occurs in experience, unless and until it is put into order by thought. Something permanent must be combined with it, which shall persist during its intermittences, and shall reduce its irregularities to order in the operation known as thinking. It must accordingly be conceived as combined with an agent or permanent agency, which lends it active power. This permanent agency animating consciousness is what is called mind.

But what shall we say is the characteristic mark of mental action, distinguishing it from physical? It must clearly be drawn from consciousness itself. I think it will not be disputed that some purpose, more or less distinctly present in consciousness, is the distinctive mark of mental action, as conceived by common sense. In drawing back my hand from a burning heat, or in coming nearer to the fire on a cold day, it is *feeling* that in some way or other prompts and directs the action. In the view of common sense, the feeling is a necessary link, and the explanatory link, in the action as a whole; explanatory because exhibiting the *rational character* of the process, not the detail of its steps as a *de facto* process simply. It is *reasonable* to shrink from the pain of burning; we do so because the mind *perceives* that the heat is painful. That is the common-sense interpretation of the act.

If you say, that such actions as these, performed without hesitation or consideration, are merely mechanical, that the feeling operates on the mind mechanically and directly, not meditately through the perception of its painfulness or pleasantness, then you must either show how the feeling operates upon the *that which* feels it, or you must mean, by action merely mechanical, action merely neural and physical. If on the other hand the perception of the feeling enters into such actions as a link in their sequence as actions, then you raise the feeling to the rank of what is called a *motive*, and the action to the rank of *mental*. The feeling becomes something to avoid or lessen if painful, something to increase or secure if pleasant, and thus all mental action is conceived as essentially teleologic, which is I believe the view of common sense. This step once taken, the difference between simple feelings, which are immediately operative motives, and complex and foreseen feelings, which are purposes or projected motives, is but a difference of degree. The characteristic of mental action, then, as conceived by common sense, is this, that states of consciousness, including feelings and ideas, are its determining motives, and the action itself in every instance teleologic; whereas, in physical action, the determining motive powers

are states or movements of material parts, and the action itself simply efficient and not teleologic. Briefly stated, mind is *that which has states of consciousness for its motives of action, whether these are feelings originating from without, or feelings or ideas originating from within.*

How states of consciousness can act on the *that which*, or the *that which* on states of consciousness, I leave for you to judge, and for the common-sense philosophies in question to demonstrate. That is the task incumbent on them, if they would show that mind is a known reality capable of affording an explanation of other things. Our familiarity with mind and mental action, as common-sense experiences, seems to blind them alike to the difficulty and to the necessity of this task, its necessity I mean, if mind is to afford us an explanatory hypothesis. Unless mind is understood, it cannot be the basis of a philosophy; and unless it is analysed it cannot be understood. Final causation presents no difficulty to common sense. All mental causation or action is by common sense conceived as final causation or action for a purpose, and the analytic question, in what its *efficiency* consists, that is, its causation simply, which is the foundation of its teleologic character, is wholly and properly passed over. But clearly in philosophy, in analysis, to understand causation simply is an indispensable pre-requisite to understanding final causation, or action for a purpose, which is the more complex case. Is there an immaterial agent engaged in the mental action at all, and if there is, how are feelings and ideas in action and re-action with it? What community of nature is there between the two?

Common-sense philosophers, as a rule, seem hardly to appreciate the special magnitude or difficulty of the philosophical problem. They take things much too easily. They are not aware, as a rule, of the enormous influence, the deeply rooted hold, which assumptions due to habit have upon our ways of thinking, even when we imagine ourselves to be on our guard against them. And even if we should rise to the full height of the great philosophical argument, this would not of itself alone suffice to secure us. Witness Kant himself, who, as I have argued above, assumes the existence of a common-sense object in answering the very question, how is common-sense experience possible? With Kant the fallacy crept in under cover of the pretext, that the assumed object was transcendental not phenomenal, beyond experience, not a part of it. But whatever the pretext, whatever the form, the fact remains, that the idea of an agent was thereby adopted from common sense, in order to explain that from which it was adopted. Instead of analysing common sense, and finding the origin of the idea there, Kant assumed the idea, that he might thereby sustain common sense.

Hegel is another signal exception to the rule, that common-sense philosophers do not adequately conceive the task of philosophy. No one can accuse Hegel of not adequately conceiving the philosophical task. His theory is intended as a theory of Omniscience. Any human mind expanded to its greatest conceivable limit would be the Absolute Mind, and the Absolute Mind is the Universe. Yet Hegel's philosophy comes plainly under one sub-division of the second main head of our classification. By selecting Thought as the sole ultimate exponent of mental action, thought being the function which orders and regulates all the content of consciousness on its passage into truth or reasoned knowledge, he prepares himself to fall into the common-sense fallacy, which identifies agency with content of consciousness, without first distinguishing them.

Hegel assumes, in fact, that concrete thought, or thought-content, is agency merely as thought-content. It moves and evolves itself out of itself by a sort of intus-susception, fission of a previously undifferentiated whole into parts which are subsequently explicitly re-united, a process which he describes as negation of a prior negation. And being content and agency in one, it is also Mind. For what else can we say of mind, but that it is the energy, the activity, of thought? Thus, where Kant had assumed a transcendental agent of thought Hegel identifies agent, agency, and content, in one single being. The combined simplicity and audacity of this conception are worthy of all admiration, considered as a *tour de force*. Kant's agent, and with it Kant's transcendental world, are swept away; reality becomes phenomenal once more; and yet the assumption on which the whole is built remains essentially the same, the assumption familiar to common sense, that *being* and *doing* are one. The agency is taken from the agent and given to the product in being given to the function. Thought, thinking, and thinker are identical. A little grain of common sense, a "next to nothing," to use a now famous expression, presents us with the whole airy fabric of Hegelianism.

The case is parallel to that of the Self, which we examined above, a case of mutual guarantees. There it was the identity of self-knower, self-known, and self-knowledge, here it is the identity of thought, thinking, and thinker. The difference is, that here, since thought is generalisation, we are presented with an universal instead of a particular mind, a world-mind in which particular minds are contained, being products of the intus-susception of the thinking process. The theory is really not a philosophy but a psychology, an *a priori* psychology of the world-mind. There is no attempt in it to analyse experience; there is analysis of the process of thought, to

which the whole content of perception is made over by the assumption, that all thought is concrete in its own right.

Yet, in fact, there is not a particle of evidence to show that sentience, or feeling, in any of its modes, is a product evolved out of thought. On the contrary, all the evidence shows that sentience is thought's pre-requisite. Thought modifies, deals with, moulds, that pre-requisite; is the remoulding of it, if you like; but it can no more account for there being such a thing as sentience *in rerum natura*, than matter can account for it. Hegel's results are obtained by analysing thought as a process dealing with general terms, instead of analysing experience as it actually comes to us. But the content of general terms is derived ultimately from modes of sentience or feeling. It is not the perception of these, but only their re-moulding into the form of general terms, that is due to thought.

The conception of thought as the one agency or energy in the world, though founded on the adoption of a common-sense assumption as true, yet leads to a result which common sense usually finds startling. For it transfers the agency of the world to the subjective aspect of things from the objective aspect, where it is usually placed. Consciousness in its function of thought becomes the real condition of its objects, instead of *vice versa*. Neither mind nor matter are real conditions, but thought in its evolution is the producer of both. On this point the analysis of experience, without being founded on the assumptions of common sense, yields results which are more in harmony with common-sense opinion.

The great crux of speculative philosophy is the fact, the common-sense fact, of power or agency in phenomena. Supposing us to see that agency is no Thing-in-itself, no logical unknowability taken as a reality, but is our common-sense way of expressing the simple fact, that things and events really exist and occur in a certain order of dependence one on another, which cannot be infringed—then the agency, the *that which makes* such and such a thing to exist, or event to occur, becomes a set of such and such other things or events, partly preceding and partly accompanying it, or in other words its set of real conditions; though, in every case, both the conditions and the conditionate may contain much which is not only unknown to us, but which may even be beyond the reach of our faculties to grasp. The question of agency is thus transformed into a question of genesis, and in the case of the Universe this question becomes: Is there any self-existent set of real conditions, or more generally any self-existent principle or principles, upon which the Universe depends for its existence, or can the Universe itself be conceived as self-existent?

We do not obtain a solution by taking the question as if it regarded consciousness alone, in contradistinction from its objects, and

yet as an existent *per se*. Just as, in the material world, the fact that matter exists does not show that it exists *proprio marte*, or is necessary, or self-existent, but the fact is one thing and the ground of it is another, so also it is with consciousness, and with thought, and with their laws. The fact that they exist does not show their self-existence, or exhibit them as *causa sui*. Here again the fact is one thing and the ground of it another. This sameness of result in the two cases is due to the circumstance, that we are here treating consciousness as an independent reality, that is, as itself an object, just as much as matter.

The result is somewhat different if we treat consciousness as the subjective aspect of existence. In respect of the question before us, the two aspects of existence diverge. Every part of the subjective aspect, every content of consciousness, is a *whatness*, an answer to the question *what?* The objective aspect on the other hand, the *thatness* of any content, requires a reason; it asks, but does not itself inform us, why it is there, how it comes to exist where it does exist. Thus existence, the objective aspect of consciousness, is a question, while consciousness, the subjective aspect of existence, is an answer, concerning which, taken as the subjective aspect simply, no question can possibly be put.

Perhaps, however, you will say, that it is just as much an impossibility really to question the genesis of the objective aspect of consciousness generally, which is Existence or the Existent generally, as it is to question the subjective aspect, because the very attempt to do so assumes what it questions, inasmuch as *existence* is necessarily expected, in the answer, by the question. This I readily grant. We cannot really question it; we can, however, attempt and fail. And we are forced to attempt it, because the whole, though infinite, is yet objective in the same sense as the parts, concerning every one of which the question must be put, simply because they belong to the objective aspect. The attempt is inevitable, but its success is frustrated by the infinity of the object. The infinity of the object is the true reason for the impossibility. Consequently, concerning the existent generally, we can only really ask, that is, succeed in asking, what we mean by it, or what we know it as, and not how it comes to exist. But then this very fact precludes our considering it as *self-existent*, a conception which supposes, not only that the question of genesis can be really asked, but also that it can be really answered concerning it.

What I urge is, not that we can ask for a cause of existence generally, but that the utmost we can know of existence belongs, not to its cause, but to its nature, which is partially made known to us in the content of consciousness. Thus the objective aspect, taken as a

which is, in the case of a finite consciousness, always a question—the question of genesis. The subjective aspect, on the other hand, taken as a whole, is always an answer, but not in the case of a finite consciousness, the answer to the question of genesis. And thus, too, with the same limitation, the subjective aspect exceeds the objective in one respect, namely, in point of unquestioableness, while the objective aspect exceeds the subjective in another respect, namely, in point of extending far more than a finite consciousness can mirror; which is what we should expect from the antithesis between them, the antithesis which describes them as a *hunc* and a *hunc*. The question of *de facto* existence in the Universe considered as containing both aspects, or if you prefer to take it so, as containing both Mind and Matter, is the last great question which speculative philosophy has to face, or rather the philosophical treatment of which it has to determine. It is this question to which the fourth and last Rubric of philosophy is devoted—its Conservative Branch.

III.

But it is time to draw these remarks to a conclusion. Common-sense philosophies are speculations belonging apparently to the fourth, but really only to one or more of the first three, of the four Rubrics into which, as you may remember, I am accustomed to distribute the whole work of philosophy. They take some ground, either that of Matter, or of Mind, or of some function of Mind, or of a combination of some of these, from which they attempt not always indeed to deduce the world of ordinary experience, but at any rate to show that this world is causatively or probably deductible, and from which it might be deduced if our knowledge of its detail was more extensive. They thus put all our knowledge upon what I may call a basis of demonstration: what we know of the Universe is made a basis and justification of all our action and of all other parts of our belief. But this view of things is not one which rises to the full philosophical height. It discards philosophical analysis of experience in favour of the assumption of one or more ready-made or absolute objects, which are taken by hypothesis as self-existent. It does not give a real explanation, while at the same time it puts us into a temper and attitude of certainty which only a real explanation could warrant.

Philosophical analysis of experience, on the other hand, really places us in a very different universe from one which could be adequately represented under the conceptions of Rubric C, conceptions belonging to the order of Real Conditioning. It places us in fact in

an infinite instead of a finite universe. In this infinite universe, the known or conceivable parts are everywhere surrounded and limited by an Unknown, out of which they rise, into which they pass, and to which they must be referred in respect both of their efficient and their final causation. It follows, that the cognitive basis of our philosophy, being thus laid in the analysis of experience as we actually have it, does not and cannot supply us with any hypothesis adequate to the genesis of the universe as a whole which is known to be infinite. We are mistaking our finite world of persons and things for the infinite universe, when we suppose that we can have cognitive knowledge of the latter as we have of the former. The infinite nature of the latter, and therefore its incognisability in the sense in which we call the finite world cognisable, are the very things shown by philosophical analysis. In one word, the attitude into which we are thrown by philosophical analysis in its full extent and true sense, the attitude into which it throws us with regard to the infinite and unseen world, is one of practical recognition of a speculatively unknown power, which is an attitude of Faith as distinguished from one of Knowledge. We are brought back once again to the same practical common-sense attitude of our starting point, the pre-philosophic attitude with which we originally confront the visible world; since we now once again find ourselves practically confronted with a world, this time an unseen infinite world, as made known to us by philosophy, which our speculative ideas are inadequate to grasp otherwise than as that infinite ocean of existence in which ourselves and our seen world are, as it were, an emerging island, a limited product and portion. Philosophical analysis justifies Faith, not by demonstrating articles from its creeds, but by showing that we have a real connection and practical interest in regions which are beyond the reach of our speculative knowledge.

There are two phenomena, or more strictly phenomena of two different kinds, in which our seen and finite world seems to be in especial contact and connection with the unseen and infinite remainder of the universe. The first consists in the least differentiated state or states of matter, the second in the lives, character, and conduct of individual men. These seem to be special points of contact with the unseen, because, on what are doubtless valid scientific grounds, we conceive the whole seen and finite world, dynamically, as an evolution of which they are the termini, an evolution from the lowest and least complex to the highest and most complex phenomena, of which we have positive knowledge. Matter is the beginning, man the end, matter the means, man the result, of the whole frame and course of nature, so far as we can observe it on this planet; and it would be fully in accordance with analogy to argue a

similar evolution from a material beginning, under different conditions, to conscious beings of other and perhaps higher orders, on other planets, or in other systems. Man, then (or creatures analogous on other planets, if such there be), seems, when we confine our view to the seen and finite world, to be the final cause or purpose of nature, as matter seems to be its first step into existence, containing and embracing the efficient cause adequate to that result. And on this confined view we might be tempted to place the ultimate purpose of nature, not in the individuals, but in some form or other of perfectly civilised and organised society, which we might conceive as destined to occupy the planet in some more or less remote future.

But it is when we enlarge our view by the philosophical conception and purpose of tracing, if possible, the real connection between the seen and unseen worlds, that the true philosophical importance of man appears. His philosophical importance consists in his being one of the two main points of contact between the seen and unseen worlds, containing the link of real conditioning common to them both; the genesis of matter being the other point. And it is only as an individual, not as a society, that he can be so. No series or aggregate of individuals, however highly organised it may be, has consciousness as a series, aggregate, or society. It is only in the individuals composing societies that consciousness resides, and it is only in conscious beings that the evolution or development of matter reaches its acme and culmination. If, then, this visible and finite world is to be conceived as a living and efficient portion conditioned by, and again contributing to condition, the unseen and infinite world, of which it is a portion, it is in the individual conscious beings, and in their practical consciousness of the relation, that the second point of contact and the second link of real conditioning must be sought. Not that we can therefore count on the individual's life being prolonged, or his individual ideals or purposes fulfilled, beyond the grave. This may be an object of religious hope, or fear, or belief founded on faith in the unseen. But the point is one concerning which all grounds of positive knowledge, and even all means of forming positive conceptions, fail us. The existence out of the bosom of which our finite and visible world arises, and into which it returns, is speculatively incognisable, as much on the side of the future as on the side of the past.

This, I take it, is the true lesson of philosophy. It re-instates Faith in its rights, not by proof of the things which Faith believes, which would in fact be destroying it as faith, because converting it into knowledge; but by justifying it as a special function of conscious life, man's position in and knowledge of the universe being what they

are. Man has an outlook into infinity, both with regard to his origin and with regard to his destiny. Faith is the availing himself of that outlook. It is at once the practical, the hopeful, the philosophical, and the religious temper. In this sense it is that philosophy is the handmaid of religion.

Man is an exponent of the power which creates, animates, and governs matter, organic and inorganic. The highest creature and the highest kind of action in the seen world must have their adequate, and more than adequate, ground in the unseen. Personality guided by conscience is the highest thing which we know of in the seen world. It is this which we use as our means of grasping and interpreting the unseen. The unseen must be that *and more*. But our known relations to it are practical and emotional, and therefore, since it must in some way include personality, and these relations on our side are personal, personality is the conception by which we lay hold of and represent the whole infinite unseen world. It ceases to be thought of as a world, and is thought of as a Person, that is, as God, the object of Faith, that is, of love, of obedience, of fear, of hope, of confidence, of trust. It is that, *at least*, that *and more*. But it is that, so far as it is within our comprehension at all. Personality is common to both worlds, seen and unseen; the link which connects them, the light which illuminates for us the unseen world, otherwise dark, that is, unseen. This common nature, apprehended by faith, is the nature which enters into that within the veil, and pierces beyond the cloud which covers the unseen from human sight, owing to the defect of human powers. Philosophy thus issues in religion, apprehending the unseen universe, not as a world by means of analysis, but as a divine Person by means of faith.

Personality does not supply an explanation. It is in its *requiring* an explanation that its philosophical import consists. It is here that the mistake of common-sense philosophies is made. They take Matter, Mind, Personality, Thought, Will, or whatever else they erect into hypotheses, as if they furnished an explanation, instead of requiring one; as if, that is, they were analytically as well as familiarly known to us, and not only so, but were also analytically known as efficient agencies. But the truth is, and it is a truth which is discovered in the province of philosophical analysis, and applied in that of philosophical construction, that man is aware of an infinite in his experience, an infinite existence which, though he knows it to be real, he has not faculties to exhaust. The universe of which he is conscious, and to which he belongs, is partly within, partly beyond, the reach of his sentient, intelligent, and moral equipment. This fact it is which determines the way in which he must conceive his relation to it, namely, as a practical not a specu-

lative relation. He attempts the establishment of a speculative relation, that is, he attempts to frame a theory of the universe as a whole, and, meeting with inevitable failure, discovers also why the failure is inevitable.

Faith is the term which expresses this ultimate, irreversible, practical relation, in which we finally rest. It is the infinite universe itself which we lay hold of by faith, the infinite universe itself which by faith we apprehend as a person. We read personality into the unseen, and we do so with full consciousness that we do it; it is our human way of apprehending that which we have no cognitive faculties to grasp specifically, but of which we also know that it is higher and greater than can be grasped by the cognitive faculties which we have. Therefore it is that no order of conceptions can override this final practical determination to Faith. It is the last word of philosophy, as it is of human nature, being justified by the analysis which philosophy has to give of the whole panorama of human experience.

THE STAND-POINT AND FIRST CONCLUSIONS OF SCHOLASTIC PHILOSOPHY.

By M. H. DZIEWICKI.

In writing this paper I have been actuated chiefly, if not exclusively, by motives of personal interest in the different phases of English philosophical thought, and a desire to learn by discussion, rather than by books, what they are, and whither they tend. Having been educated in the strictest principles of Scholasticism, and still believing that this system has very many good points, I intend to maintain here, not indeed every doctrine of the School nor even those great points which are its fundamental articles,—such, for instance, as the Universals or the origin of ideas—but only the principles upon which those fundamental articles themselves are based; in short, as the title of the paper runs, its stand-point and first conclusions. And even of these there are so many that only a very few of the most important can be discussed here.

But though I intend to stand by the Scholastics, my manner of doing so will be quite independent; so much so indeed, that perhaps some may think I can hardly be counted in their number. I have a special antipathy for one point in the practice, if not in the doctrine, both of Schoolmen and of too many other philosophers; I mean the

sweeping condemnation of all opinions that differ from their own, and the slighting epithets heaped upon all opponents. My firm and constant belief is that in every system, even where most erroneous, there must lie some truth. It is impossible to affirm that a thinker who has spent his life over a system that has given him a great name in the world should be no better than a charlatan, a madman, or an idiot. And this belief militates in favour of the doctrines of Schoolmen, though it may condemn their practice. Never was there greater intellectual activity in the world—without even excepting the best days of Greek philosophy—than from the eleventh to the fourteenth century of our era. And should anyone call this activity misapplied, this is only an opinion, not a judicial sentence. Were the whole race of mediæval philosophers to express a verdict upon our modern ideas, it would most probably be very harsh, very unjust: and in neither case would it be of any value.

Let us then take a broader view of the matter. Metaphysics is a science of boundless interest in its object, but of no less difficulty in the attainment of that object. And that object, we may here confess, has never been scientifically attained; I mean, in a way that settles all doubts for ever, and prevents all further fluctuations of opinion. Since the beginning of its history two opposite tendencies have divided philosophical thought; one current setting towards Materialism, Positivism, or speaking more generally, Empiricism; another towards the Ideal, Spiritual, and Transcendental view of things. Now one current, and now another, has prevailed in the mental world; schools and doctrines without number being the result of this fluctuation. But since neither of these extremes has been able to hold its own for any length of time, neither can be the right one. Both Empiricism and Idealism melt in their last conclusions into universal Scepticism, the doctrine of the celebrated Pyrrho. When Hegel identifies the Ego with the Non-Ego, the principle of contradiction is shaken, and absolute doubt must ensue. When the Empiricist grounds that very principle upon the happening from time immemorial of phenomena, which *might* have happened otherwise, the door is open to the same universal doubt. And yet Scepticism is a doctrine which, like Saturn and the Revolution, devours its own children: no body of men can long continue to admit a tissue of palpable absurdities, and the utter denial of reason. Between the two extremes of Empiricism and Idealism, and the farthest possible from the Scepticism into which they dissolve, stands the school of Aristotle and Aquinas. It had certainly the longest reign of all; and yet its reign is over, and by no means likely to begin again. None of these has satisfied the human mind. But shall we for ever sway backwards and forwards? If so, Metaphysics would be self-

condemned as folly. But what folly is that which human reason cannot escape from, and finds at the bottom of all knowledge and of every science?

I. Scholasticism and Scepticism; a Point of Agreement between them.

I wish to point out very succinctly, how Scholasticism can reconcile these three different modes of thought. Since Scepticism is the form into which all the others fall at last, let us see whether we cannot effect a union between Scholasticism and Scepticism. This has indeed never been attempted before. Schoolmen have nothing but contempt for the "deliramenta" and the "absurdissimæ ineptiæ" of sceptics; even the moderate Aristotle declares that "such men are like plants, and not to be reasoned with." And they prove their position most triumphantly, it must be allowed. If we can doubt of all things, can we doubt of our very doubt? If not, something is certain; if we can, something is also certain—doubt. Do we even know what the word "doubt" means? Granted that we do, we know something; and if we do not, then we know that we do not, or we are idiots.

All this reasoning is very good; but it has the disadvantage of being much too obvious and too easy. Can we suppose that those great men who were Sceptics could not see such arguments as these, that come naturally to the mind even of the unthinking?

Besides, the fact is, that doubt *is* everywhere. Every affirmation is the answer to a question; and the very word "question" implies a doubt, either actual or potential. If universal doubt were so absolutely impossible a position, why argue against it? Astronomers would not try to disprove the belief that the moon is made of green cheese. I admit that we cannot doubt a sensation *at the very moment that we feel it*; but neither can we affirm it. We feel it; and that is all. Affirmation comes afterwards, and with affirmation, doubt; knowledge and doubt mingled together. A sensation is the beginning of knowledge, it is not knowledge itself; just as a point is not a line, but only the commencement of a line. As soon as the sensation has passed into memory—even into immediate memory—there is room for doubt. Here we find something similar to Hegel's assertion of the identity of contradictories. If we call Doubt the Non-Affirmable—that which we cannot affirm, its contradictory will be the Affirmable. The Schoolmen says: the Affirmable is affirmable, in so far as it is affirmable; and reversing this proposition logically, we have: the Non-Affirmable, in so far as it is Non-Affirmable, is not affirmable. The Sceptic and the Hegelian will say: the Affirmable is non-affirmable; the Non-Affirmable is affirmable. I join with

them ; adding, however, that there is no contradiction here, and that it is quite possible to reconcile these seemingly conflicting positions.

That wherever there is knowledge there is doubt, must be granted. We must likewise grant that any line extending from right to left, extends also from left to right; and if one inch in one direction, one inch too in the other. It does not follow, however, that the left and the right *directions* are the same; though in any given line or part of a line they are certainly equal. In the same way, though the progress from doubt to knowledge must imply an equal amount of doubt and knowledge from the beginning to the end of the movement, still it does not follow that knowledge is doubt.

Again, if we take a portion of the line in question, and compare it with another portion, it may be more to the right: and if so, it will follow of course that it is less to the left, on the whole, than the other portion. And as you are able to predicate "more to the right," say twice, three times or four times as much, so you must predicate "less to the left;" twice, three times, or four times less. And the same predication would be necessary, relatively to any two points taken on that line. Now, is it not possible that this may hold good of knowledge and doubt? That the better we know anything the less we are able to doubt of it? and *vice versa*. Perhaps this deserves a closer examination.

A flash of lightning passes before my eyes. At the moment, there is no possible doubt, because knowledge only begins at the instant of perception; and as I have said before, certitude ceases to exist where it has grown beyond all measure: sensation, prior to affirmation, cannot be a certain judgment, but produces it. If, twenty-four hours afterwards, I wish to recall my mental state at the time I saw the flash: where I was, what I saw besides the flash, what I felt or heard, or was thinking about; there would be very considerable room for doubt. And the more time elapsed, the greater confusion and indetermination would be found in my memory; and with confusion comes doubt. For sensation has given me, we must remember, not an abstract fact of a flash, but the concrete fact with all its adjuncts; and memory keeps only a few of them, ever fewer and fewer as time passes away. Instances might be multiplied indefinitely, and yet we should always find the proportion between doubt and certitude, affirmability and non-affirmability, to be in *inverso ratio*. Are we absolutely sure of a mathematical demonstration? Not so much as of the principles from which it flows. Now, less certitude means more doubt. We do not doubt practically, but we know that mistakes can be made; we know that, going from one link of the demonstration to another, from one theorem to the next, the possibility of going wrong is increased; that the fact that this demonstration has been

gone through by thousands of mathematicians, only reduces the chances of error enormously, but does not altogether eliminate them, strictly speaking. And therefore, up to the very first principles on which these demonstrations rest, their increasing certitude is accompanied by regularly decreasing doubt. Can we doubt of those principles themselves? More than of the principle of identity and contradiction upon which they are based. And this very principle, as we know, has been called in question.

Here, however, I would note in few words a seeming contradiction of mine. It is when we get to the first principle of all, the most abstract, the most removed from sensation, that certitude tends to become infinite, and to eliminate all doubt. But we have already admitted that certitude tends to become infinite as we approach sensation, the individual feeling, the absolutely concrete. It will be, I think, sufficient for the present to point out briefly that certitude and doubt may prevail in two very different orders: the order of *facts* proceeding from without; and the order of *mental laws*, proceeding from within.

We may therefore affirm that, though doubt and certitude are everywhere to be found, they are everywhere in reversed proportion. And when I said that they are not identical, I perhaps went too far. In a straight line, the two directions, right and left, are identical in a certain sense. They are identical with the line, and therefore with each other. They are indeed each of them the line itself—considered in a different way. Thus of doubt and certitude.

The road from utter ignorance to perfect science is doubt gradually diminishing, just as it is gradually increasing certitude. The least probable opinions are *certainly* probable for those that hold them; the most certain truths are *doubtfully* certain to those that are not quite convinced. But, in the human mind, there is a line of greater or less resistance to certitude and to doubt. There are some positions that we have the utmost difficulty in considering as certain, as certainly probable, and even as certainly thinkable; and the further we go, the greater the difficulty becomes. On the other hand, there exist some propositions which we can hardly and with the utmost difficulty find room to call doubtful, even with hesitation in our doubt.

At this point I am happy to be able to bring to the aid of my reasoning the authority of the celebrated Pyrrho, the first founder of Scepticism. Though no works of his are extant, we have an anecdote in which his view fully agrees with mine. He is reported to have run away from a mad dog, and being asked why he did that, since everything, even to the existence of a mad dog, was doubtful, he replied: "It is hard to divest oneself of one's own nature." That

is just the fact that I have pointed out. Nature, at a certain point, begins to resist doubt, and it is hard to act against nature, as Pyrrho says. And certitude is just that resistance to doubt which in some cases amounts, in most minds, to really physical impossibility.

A reconciliation between Scepticism and Scholasticism appears thus to have been brought about. Everything is affirmable, everything is non-affirmable; but affirmability is reversed non-affirmability, just as the right direction is the left direction reversed. And this admits of dialectical demonstration. If we say that "everything affirmable is affirmable, in so far as it is affirmable, and no further," we find, by conversion, that "everything affirmable is non-affirmable, in so far as it is not affirmable." And these words "in so far as it is not" either mean "inversely as it is" or mean nothing.

II. Scholasticism and Hegelism ; a view of things common to both.

Hegel's position : "The Ego is identical with the Non-Ego," may be disposed of in the same way, and therefore with much less trouble. There is no difficulty that I see in admitting that Otherness extends to the very centre of Self, if we say that it *diminishes as it approaches that centre*, which is of course nothing but an indivisible point of thought, and is perhaps represented in ordinary speech by the word Now, that constitutes the Present by separating the Past and the Future. On the other hand, Self is to be discovered in Otherness. There is something of myself in the uttermost regions of space—something, but infinitely little. Practically, this changes nothing, and rather confirms the common-sense view of the universe. A physicist may assert that the rays of a taper lighted in London will have influence in Sirions, if he takes care to add that this influence will be so small that no fraction can represent it. So may also a philosopher say that nobody is himself, provided he qualifies his assertion by saying that each man is infinitely more himself than he is anybody else.

But here I should like to meet an objection. It may be said that the Ego is all the more Ego, in proportion as the Non-Ego is greater. For, by my own showing, from any one centre of self—A, for instance—to any object B, there is a certain amount of self, and the same quantity of otherness. B is as regards A, a centre of otherness; so is A as regards B, and the imaginary line that joins the two is necessarily as long from B to A as from A to B. But let us now suppose the central Ego, A, in perception of another object, C; its "egoism," if we may use the word, must increase two-fold, more or less; but if a certain amount of self is again perceived

between A and C, the same amount of otherness is also perceived. And so on of the totality of our perceptions; the more any being is Self, the more it is Other. Otherness is therefore not only the concomitant of the Ego, but it coincides with it; and at the central point, the Ego being infinitely Ego, is also infinitely other.

To answer this argument, let us try to put it into the form of a syllogism. It certainly does prove something; but the question is, whether it proves the contrary to our thesis. "What is other than what it is not—is other; now, the Self is other than what it is not; therefore the Self is other." Here the distinction between *dictum simpliciter* and *dictum secundum quid* finds its place. "A good shoemaker is good; now Thomas is a good shoemaker; therefore Thomas is good." We are obliged to admit the whole argument, only adding the important distinction, *quà shoemaker*, which ought not to be forgotten. And so in the case before us, the argument comes merely to this conclusion. Every Self is other than what it is not. Now, to be other than what it is not, means, under a negative form, to be identical with what it is. And when it is said that the central Ego is infinitely other, it merely signifies that it is infinitely identical with itself. This is nothing but a play upon words. Whereas, it has been proved already (and, I think, conclusively) that every self is other than what it is; inversely as it is self, we must add: but still this otherness at least is real and intrinsic, not a logical juggle at all. And we have the axiom of the German philosopher thus modified in an abstract form. Identity and difference are the same conception, reversed. The Schoolman and the Hegelian may here join hands.

III. Scholasticism and Empiricism; the beginning of an Agreement between them.

Empiricism, in its most extreme form, denies the difference between Matter and Mind, between the extended and the inextended. It would be a somewhat more complicated task to point out the way in which a scholastic mind could be reconciled to this; so I prefer to take a wider principle, on which the preceding denial must be based, to have any value, as it is only an application of it; the *Divisible is identical with the Indivisible*. I believe that the Scholastic can grant that unhesitatingly, with the sole proviso "*inversely as it is divisible*." I need not of course show how this proceeds from the great principle of identity, for the train of argument is the same as heretofore. As any object of thought is more indivisible it becomes less divisible. At one end of the line we get to Absolute Unity, which (as *ens et unum convertuntur*) is absolute Entity; at the other end we come

to the absolutely divisible, without any principle of indivisibility—to the pure nothing, the Nihilum. It is in strict accordance with this principle that the Thomists, although they granted a certain amount of simple unity and freedom from extensive parts, to the human soul and to all superior beings, were forced to admit the essential composition of all created things, each of them more and more composite as it was farther removed from Infinite Perfection, the entity without non-entity, the indivisible without divisibility.

I may well be mistaken in so arduous and abstruse a subject: but if not, we find here a common ground for Scepticism, Transcendentalism, and Empiricism to join issue with the Scholastic doctrines and with each other. And though I am under no illusion as to the divergence of these modes of thought in their ulterior developments, I still feel that if there is any stand-point from which they all start and to which they must all return, a real step forwards has been made, and we may in future hope for the progress of true Philosophy—that Philosophy, as I understand the word, which takes from the fundamental points of every system that which is true in it; which I should call Scholastic and my neighbour Hegelian or Positive, but which is in reality wider in its scope than any one-sided doctrine of the past.

IV. Scholastic View of the Absolute, made to agree with the views of the three other schools.

We may therefore illustrate by a straight line, indefinitely produced from left to right, each of these ideas: the Affirmable, the Ego, the Indivisible; and by the same straight line, from right to left, the other corresponding ones: the Indivisible, the Non-Ego, and the Non-Affirmable. The whole of the infinite length from left to right would stand for the Absolutely certain, the Centre of the Ego, and the Pure Entity without Non-Entity (or Infinite Being); the same length, from right to left, would represent the Utterly Unknown, Otherness without Identity, and the Absolute Nihilum. But here arises the question whether we have any idea of these Absolutes? whether they are not merely unmeaning words, or at most, the name for an imbecility of the human mind? Do these terms, in fact, represent anything *intelligible*? For we know that the infinite line that represents them does not and cannot exist; it may therefore be that these ideas do not exist either.

It does not seem very probable that these expressions are mere unmeaning words, when we consider that the great majority of philosophers can hardly have been mistaken, when discussing them, in the point where it is hardest to make a mistake—in talking

nonsense, and thinking it was sense. That they are only names for an imbecility of the human mind, transmuted into the nature of things, comes much nearer to the truth, but requires explanation. The Absolute—whether applied to the Ego, to certitude, or to the Indivisible, connotes a subjective limit of thought. Now, a limit supposes two things; the first, that the thing limited extends as far as its limit; and the second, that it extends no farther. It follows that the limit can neither be properly thought of as included by that which it limits, nor as excluded by it. Or, in two opposite senses, it is both included and excluded. Does the surface of a circle include its circumference, or no? for the circumference is neither outside of the circle nor within it. If, in like manner, we ask whether the Absolute, limit of our thought, is included by our thought, or no, the answer ought to be similar to that which we would give for the circle. The mind, limited only by the Absolute, touches it indeed; but it does not grasp it, for it can go no farther. The Absolute, *quā* identical with the utmost stretch of our mental powers, must be reached by them; *quā* exceeding this utmost stretch, it cannot be so reached. It is therefore evident that we have here a conception of a very peculiar kind, and quite different from what is usually called a conception. Nay, if we take the word in its etymological sense (*cum, capere*) we ought even to deny that we have a conception of the Absolute. All we can say is, that what is in any way reached by our thought, is more than a mere unmeaning word; and the fact of the imbecility of our mind, of our inability to grasp it, proves nothing against the Absolute itself, but rather the contrary. Admitting, therefore, that our idea of the Absolute is imperfect, that proceeds only from the weakness of our own ideative faculty, not from any imperfection in the object itself. Here I may illustrate my meaning by a comparison as old as Aristotle, yet so appropriate that I must use it. If the eyes of an owl are unable to gaze at the sun, if the sensation produced by this gaze is a peculiar one, partaking quite as much of darkness as of light, it is not the fault of the sun, but of the bird's own visual organs.

Still, the question is not settled. In what sense is the Absolute intelligible? can our idea concerning it amount to knowledge, or not? can we know anything about absolute certitude, about the central Ego, about pure unmixed entity? Here I have to note down a few points concerning what intelligibility is. First, to show the distinction between intelligibility *in se* and *quoad nos*. If, for instance, in the place of the vast continent of America there was only a floating buoy in the midst of the ocean, the latter would be much more difficult to find, and consequently much less intelligible *quoad nos*.

than the former. But, both having been discovered, should we wish for a complete knowledge of all their parts, we should sooner—infinitely sooner—know all about the buoy than about America. Why? because America contains immensely more intelligibility *in se*. And notice that this multiplicity of intelligible characters, consisting in this case of extended parts, is the very reason why America (in the sense of finding) is more intelligible, and (in the sense of knowing completely) less so. It is because there are two sorts of intelligibility *quoad nos*: apprehensibility and comprehensibility. The more anything is intelligible *in se*, the more qualities it possesses to strike our mental vision, the more apprehensible it will be, for it requires a less effort of the intelligence to apprehend it. And, on the other hand, the less intelligible anything is *in se*, i.e., the fewer qualities it has, the more comprehensible it is, because it requires fewer acts of the intelligence to be completely known. And thus apprehensibility and comprehensibility stand in inverse ratio to each other, varying as intelligibility *in se* varies itself.

Now, let us apply this theory to the case before us. We have said that absolute certitude is to be found only in sensation; but that sensation, as all must admit, cannot be properly called knowledge, since it precedes affirmation. We feel before we even think that we feel. Sensation, therefore, is the absolutely affirmable; is it intelligible? It is at the end of the infinite line; here, therefore, Affirmability, and consequently intelligibility *in se*, has increased beyond all measure. It will therefore be infinitely apprehensible, but not comprehensible in the least. At the other end we have the utterly unknown—the non-Affirmable—without any shadow of affirmability. Not requiring the slightest act of intelligence to grasp it, it will be comprehensible beyond all expression; but, on the other hand, its intelligibility being zero, it is undiscoverable, and, as such, its apprehensibility will vanish completely. Now, if this is so, I think I may venture to affirm that every point of this infinite line, from absolute certitude to absolute doubt, is equally intelligible *quoad nos*. The two factors vary, it is true, but they vary in the very same proportion throughout. And if this be true at every conceivable point of the line, we are, I believe, mathematically justified in affirming that the intelligibility *quoad nos* of the limits is also the same.

By a like argument, we could prove that the central point of our Ego, infinitely apprehensible, is also infinitely incomprehensible to us; we could understand how the idea of the Noumenon, the pure Non-Ego, the Thing-in-itself, is not a mere unmeaning word, but a limit of thought, perfectly comprehensible though impossible to

apprehend; and we could point out in what way our glimpses of Infinite Being and of utter Nothingness are justified. But it is of no use to dwell any longer upon these details. I hasten to say a few words about the Unknowable.

Whether there is or is not anything unknowable, is, in my opinion, a mere question of words. It comes to the same thing as asking whether the beginning of a line belongs to the line or not. Only, in mathematics, we *see* the answer in the very diagram of the line, and do not care even to put the question; whereas metaphysicians, not possessing any diagrams of the sort, see things less clearly. I have ventured all along to take the straight line as a diagram that sufficiently represents the ideas I have in view. Supposing A infinitely distinct from B; A representing absolute ignorance, pure Non-Ego, or the Nihilum; and B, the contrary;—and having proved that A and B are equally intelligible *quoad nos*, and as intelligible as any point in their whole extent: I say it is a matter of no importance that you define knowledge to require that the two factors, apprehensibility and comprehensibility, should be greater than zero. Knowledge is, after all, only a word that can be used in hundreds of different senses, and if there is any use in restricting its signification thus, let it be done by all means. Philosophy will not spend so much time in disputing over words, if we ever manage to find a solid basis on which to discuss things.

V. Two Objections Answered; Conclusion.

Let me now examine two objections, similar in their nature, that might be made by Scholastics against me; they will help to point out my position more clearly. One objects that this way of interpreting things destroys the value of all categorical judgments. There is no longer any difference of kind, but only a difference of degree. And if so, Formal Logic must perish entirely, for the very essence of the syllogism implies species or kinds, one comprised wholly or partially within the other. To this I may reply that I by no means destroy difference in kind by assimilating it to difference in degree; I rather render the difference in degree a difference in kind. Number 7, for instance, is in one point of view different in degree from 6; it is the idea of multiplicity, more intensified. But, on the other hand, 6 is a generic idea, with which, if you combine the specifying difference “without any unity superadded,” you have the idea of 6 *only*; but if you combine with it the other specific difference, “with one unity superadded,” you get the number 7. Our diagram, the straight line, comes in again here. Suppose α A a line stretching from α , infinitely distant to the left, as far as A, a point to the right. Now let us

produce αA again to the right, as far as B . Is αA different only in degree from αB , or does it differ from it in kind? Both. αB is the same line as αA , only longer towards the right; therefore it is a difference in degree. But $A B$, predicated of αB , and denied of αA , is in reality a specific difference. Every difference, in so far as it is a difference, is specific; and the judgment that αB stretches more to the right than αA is a categorical judgment. I by no means wish to reduce Dogmatism to the chaotic side of Scepticism by the qualifications that I would add to each of its assertions. These qualifications, on the contrary, would render it more precise, more accurate, and in the best sense of the word, more dogmatic.

The other difficulty is that the conceptions of truth and falsity vanish away, or at least are found pure only at the very limits of thought. As for the speculative conception of truth and falsity, I think it suffices to observe that though mixed, they are everywhere in inverse ratio with each other. We cannot expect to find absolute truth in every proposition. As for the practical conception, we may say that any proposition which, affirmed without qualification, brings no practical inconvenience or absurdity with it, is true; and false, on the other hand, if the practical inconvenience or absurdity is considerable. To say that everything right is wrong would be to utter a false proposition; although the absolutely right and the absolutely wrong may be limits of thought, because this proposition, substituted for this other "everything right is wrong, inversely as it is right," would lead to immorality by the omission. Again, though it may not be absolutely true that a man is himself, but only in so far as he is not other, still that would be no excuse for denying one's name in justice. It would be absurd for any one to say that he is the Emperor of China merely because he conceives the Emperor of China as an object of thought, in so far identical with the thinking subject, because this identity exists only to a very small extent.

In conclusion, I may repeat that these are by no means all, or even a considerable part, of the first conclusions of Scholastic Philosophy, as I understand it; indeed, on reviewing what has been written I find that only two or three points of this vast subject have been barely touched upon. As it is, however, I hope that this paper will excite sufficient interest to rouse discussion in this Aristotelian Society. None can feel more deeply than its members what advantages would be likely to accrue to Philosophy, if a reconciliation were indeed possible between the dogmatism of Aristotle and the scepticism of Pyrrho, between the Transcendental and the Empiric schools.

THE PHILOSOPHY OF REVELATION.

By Rev. J. LIGHTFOOT, D.Sc.

THERE are two possible questions which arise here which should be distinguished: the question of *how*, and the question of *what*; i.e., "How is Revelation possible?" and "What is the essential content of Revelation?" if there be anything to which the name can be properly applied.

Now, although to practical men the former question might seem a very superfluous one, and even in the philosophic mind there might attach a certain impropriety to the discussion, yet it is to the former of the two questions above distinguished with which this paper is concerned.

The ordinary practical mind invariably considers the discussion of *how* a thing is possible rather a foolish procedure. If, as a matter of fact, a thing is or has been, there you have answer sufficient as to its possibility. Facts are facts and remain so, all philosophical discussions notwithstanding. But it is just the previous question about the little word "fact," and what is therein implied, that interests the philosopher. As to the big empirical detail of the historical accuracy of alleged records of events happening years ago, with this philosophy, *as philosophy*, has nothing to do. Philosophy is not Theology any more than it is Geology. History, as the narration of events in time and space, is matter for the man of science. The accuracy of the details of religious history and their trustworthiness are matters for the Theologian to investigate and classify, exactly as the Geologist investigates and classifies his facts. Theology and every other science furnishes facts for philosophy, but they are not philosophy. Had the question been, "Has a Revelation, in the sense of certain acts of Divine interference in the course of history, taken place?" then I think we would have been quite out of our sphere in discussing it.

Still a certain impropriety might be attached to the philosophic discussion of the more general question of "How Revelation is possible." For it might seem that if revelation reveals anything, human or divine, then the discussion is only a special aspect of the larger problem of knowledge. And indeed this is quite true. The subjective reason does not originate any one of its experiences. Standing as it does in the relation of need and reception of its objects, it might fairly be said, that it is unnecessary to draw a distinction between what is hereafter to be called a revelation of religious truth, and the ordinary procedure of the human reason. Reason obtains *all*

its store of truth upon the same terms, all knowledge consisting of the importation to the mind of facts hitherto unknown as objective. Why then, it may be fairly asked, should a certain class of experiences be marked off as forming a revelation, when the name is not assigned to other knowledge which appears to be similarly acquired? This preliminary objection must be considered a good one. Looking forward to the result revelation must be considered knowledge. But still it may be fairly urged that there are certain special characteristics about revealed truth, both as to its origin and content, which would seem to justify the application of a special name thereto, and entitle it to separate consideration apart from the larger problem of knowledge generally. For, obviously, the very name "Revelation" seems to assume an inadequacy in the ordinary process of experience. Now, by whatever term we designate them, there are certain ideas of which men are possessed which we generally speak of somewhat vaguely as the "religious instinct in man." Whether we view them psychologically as "cravings of our nature," or whether we view them philosophically as the "religious categories of thought," their presence is indisputable. Men are possessed with the conviction that there is a condition of things in their own lives and in the state, which *ought* to be, as contrasted with what too often is. And this is so, even though any individual man would fail to give any very clear idea of what that condition should be. Like men of ancient days who, "not having received the promise, died in hope, so we, too, according to the promise, look for a new heaven and a new earth wherein dwelleth righteousness." When, too, we look upon the little fragment of the universe which we quite imperfectly know, the spectacle of so much that to us seems full of deep significance and beauty awakens an echo within of an absolute and universal teleology. We cannot think these things apart from intelligence, we cannot think them as the accidental product of that which was void of beauty or significance. Then once more we have, in a hundred ways, forced upon us a sense of limitation, a consciousness of insufficiency, of dependence upon an unknown somewhat, some complete and absolute existence, and all this compels us to seek rest for our souls in something *other* than a mere empirical view of things. Now it is to that which, in some way yet to be discussed, originates these said cravings and hereafter satisfies them, that I would for the present confine the term revelation. Here, obviously, we are in the region of psychology. Indeed I would, to some extent, qualify the term "originates." I would be content with the word "emphasises," and would apply, for the present, the term revelation to that which emphasises these said cravings of our nature, that which pushes them into prominence in personal expe-

rience, and through which they become factors for the guidance of life.

This is a content of revelation no doubt different from that which passes current in these days. We are rather accustomed to have a sharp distinction drawn between what is called *natural* and what is called *revealed* religion. And it is not at all unfrequently assumed that certain articles of faith are discoverable by reason [*i.e.*, reasoning] alone, whilst to these revelation has added a peculiar number of additional truths and details. As an ordinary mode of speech this is permissible enough, but ultimately it is quite incorrect. The contrast in reality is not between truth discovered by reason, and truth revealed to reason, but rather between truth discovered to reason in *one way*, and truth discovered to reason in another way. What are called the truths of natural religion have not been arrived at by men in general, or any man in particular, as a matter of logical deduction. It may be quite correct to say that such truths need no proof, it is also correct to say "that they admit of none." Revelation is a term, then, which I may use for truth which at least may be said to be distinguishable as to its origin and significance from the ordinary process of knowledge. The term is also used to a process constantly repeated in the soul and experience of the individual, as well as to divers supposed acts of Divine intervention in the course of history. Of these two latter aspects I confine myself to the former.

There are two observations made in quite different interests which require just a word here. It is said that anything once banished from the sphere of knowledge cannot hereafter be brought back into knowledge under the name of faith. Still, in all metaphysical systems much may, and indeed must, be assumed of necessity for linking together known matters of greater importance. And with such assumptions, providing they do not violently refuse to tally with the facts of our conscious experience, the philosopher will be the last to quarrel. On the other hand, I think there is a loose way of talking which confuses what is called faith in the religious sphere with that faith which finds its necessary sphere of exercise in the scientific interest. Hence we hear it said not unfrequently that the "*just and the unjust alike walk by faith.*" But there is evident confusion here between those root principles in which scientific cognition puts absolute trust (which, indeed, it must accept *as* they are without being able to say *why* they are), and what are usually described as the objects of religious faith. The one are but the very nature of the subjective reason itself expressed in form of principles of its procedure; the other are definite matters of fact. Still, the statement that the just and the unjust walk by faith has a meaning which in the deeper sense is quite valid. For however revealing facts reveal, the revelation

once made must be understood. A revelation which remains mysterious is a contradiction. There may be much that is inaccessible to the individual at any given time, and speculatively we are justified in assuming a great deal more than is known, so far as it is indispensable for combining into a system other matters of importance. But a revelation of a mystery which yet remains a mystery is a contradiction. Since then a revelation is something which must be understood, it can only be so through the same mental modes of procedure as ordinary cognition.

I would now lay down as a proposition for your consideration that "there is no antecedent improbability in the assumption that from a Divine source and through a Divine operation within the soul, there may be produced certain subjective *moods*, just as from some source or other and in some way or other we receive, in the process of knowledge, sense impressions.

It is a view in perfect accordance with common sense that all the particular contents entering into our experience are not produced by us, *i.e.*, we rather regard ourselves as the stage whereon particular moods and impressions make their appearance, we do not regard ourselves as the producing cause of the one or the other. Now, since the individual subject comes into existence and has his experience conveyed to him piecemeal in the order of time, we are compelled to think of the realm of reality to which in some fashion we assign these varying moods and impressions, as being greater in extent and more permanent in time than the individual subject. The individual concrete mind seems further so constituted that impressions received are of necessity clothed with special attributes or regarded under special relations, which attributes and relations would have no significance beyond the sphere of action of the individual. The greater realm of reality would, therefore, at once seem characterized negatively as a realm not constituted in like manner by relations which involve dependence upon mind. This negative definition is carried generally much further, and the realm of reality is spoken of as "the unknowable," which again is pretty much what theologians mean when they speak of God as the cause of all our conscious experience, and then follow it up by adding His thoughts are not our thoughts nor His ways our ways.

If this position were a just one, I confess that "revelation" would be a meaningless word. I could conceive no way in which this unrelated world might come into touch with us. But it is open to doubt whether the position is a sound one. There has been assumed a real world of objects, and a real concrete individual with a special constitution and structure. With these assumptions it is easy to understand moods and impressions coming from what in the deepest

sense is external will assume special form dependent on the nature of the mind itself. But what is unsatisfactory is just this—that the assumptions have merely restated in an obscure fashion the problem which we wished to solve by their means. If it is really the case that knowledge is a complex result arising from the co-operation of real things *other* than mind, and mind itself, then evidently nowhere in knowledge could there be given any adequate comprehension of the real antecedents in question. The world of real objects and God Himself would be indeed unknowable and unrevealable. We would for ever be debarred from verifying the assumption with which we started, and a philosophy of such things would be as futile as an investigation of existences on the far side of the moon. In all such thinking there is, however, taken for granted the thought that the objects which we call real, other than mind, form a system, and stand in relations one to another. Such relations, however, are only possible *within* a world of intelligence. We must either regard these relations in one way or the other, *i.e.* (1) either as relations for intelligence [in which case we cannot view intelligence as springing or being evolved from them]; or (2) as relations not for intelligence [in which case you can form no manner of conception about them]. This forces upon us the conviction that the world of reality is possible matter of intelligence for a conscious mind, and its parts so related as they only can be if dependent on, or essentially connected with, mind. This conviction opens a doorway for the possibility of knowledge and of that special knowledge which we designate revelation.

We confess the temporal development in the life of the individual spirit. There is no *a priori* method of determining what is involved in the complete synthesis of self-consciousness and its objects. Neither in respect to what is called the world of nature or the world of mind are we in any position to read beforehand the secret of the constitution of things. In the life of the individual subject there may be involved just that gradual attainment of insight into its own world which in reality is the ground for denying to the individual spirit productive or creative power. Indeed the "given element" in knowledge ultimately signifies perhaps only this, that the conscious subject is not in a position in his conscious thinking to interpret the whole secret of existence, that he is not able to grasp in one comprehensive view the sum total of relations connecting all parts of the intelligible world in one whole. The contingency of our conscious experience I take to be the expression of the fragmentary character of the ways in which the individual subject realizes his spiritual life. Bearing all this in mind, it may not now be considered too much to say that the world of reality which all believe in some way to be causally related with, and to form the basis of our world of experience, these

(God, the unknown, the realm of real things, by whatever name it may be called) enter into relation with, and form a system with the world of my subjective experience. There is, in short, but one realm of existence possible. There can be no realm of the unknowable, although we confess that as yet much to us is unknown.

From this it would seem to follow that anyhow there is no antecedent impossibility or improbability in the psychological problem with which we started, that just as knowledge in the individual subject commences through sense impressions which are not considered as created by him, so something analogous to sense impression in the spiritual life may be supposed to originate in the soul divers moods which we may now concentrate attention upon.

In the ordinary process of knowledge a sensuous impression regarded as such is but a way in which we are affected, it is some phase of our condition, in itself it gives us no knowledge of any matter of fact (so called), taken alone it constitutes no experience. It is our thought which masters, combines, and compares the revelation of sense, and interprets the given combinations, it is only through these psychological processes that we arrive at the knowledge of some fact. And we should be justified in expecting that the revelation of truth of religious significance if made at all would be made in some such analogous way. The cruder forms of Intuitionism are accustomed to think of the voice of Deity within, speaking in language most unmistakable of truth and duty. But the diversity of moral judgments amongst men does not seem to be accounted for upon such a supposition, to say nothing of the greater difficulty of those who assert that they hear no voice and are conscious of no such guidance. The more refined form of the Intuitive theory in which the existence of a higher faculty (reason or conscience) is assumed as giving law to the rest, is burdened with many difficulties, however appropriate the description may seem as an ordinary mode of speech. The reason why this particular theory holds so high a place in the philosophic regard arises chiefly from the inherent defect of the theory to which it is directly opposed, viz., that truth of so-called religious significance is mere matter of historical phenomena, or anyhow mere states of consciousness. The Intuitionist can see quite clearly that the historical treatment and the psychological analysis have proceeded throughout on the assumption that somehow there was recognized, and practically operative in conduct, first, those principles or body of truth of which the explanation is being sought. But even the warmest adherent of the Intuitionist school will not contend that prior to experience there is given to any man a coherent revelation of Divine truth. Even when it is held that by way of revelation distinct principles are

conveyed to the soul, it is still held that they become conscious principles only after a definite experience. It is only by reflective comparison of many particular judgments of approval or disapproval of many definite actions that there are hereafter formulated those general ethical precepts which are usually called the immediate voice of God within. Nor is there any occasion for surprise here. Knowledge of any kind is not the ready-made possession of consciousness. We are induced by particular perceptions to effect their combination, and hereafter to give them definite significance as a world of things. So, too, it is impossible to conceive of a revelation in the sense of a simple communication to the soul of truth wholesale and ready-made, and that the activity of the mind should be unnecessary to its reception. Reflection upon the ordinary process of knowledge compels us to expect that nothing more will occur than that occasion shall be given to the mind to produce (as it were) such recognition of divine truth by the exercise of its own activity. In short, nothing more seems conceivable or necessary than that Divine influence should produce a mood, and that what is thus experienced becomes a revelation only through some work of reflection which analyses its contents, and reduces it to coherence by clear notions.

The especial feelings which I have in view as those to which I thus attach significance as material of revealing power will readily come into view if you recall the analysis of the religious instinct which I made in the earlier part of the paper. Thus, for example, take what is usually spoken of as the reproving voice within, that which is really experienced is a sense of conflict, of unrest, of dissatisfaction. The whole of those subjective feelings which we associate with the term repentance, are perfectly unique and defy any empirical explanation. From the very dawn of self-consciousness there is an awakening amidst our natural desires and impulses of a consciousness which is other and larger than these desires, and there are moods experienced which forbid our finding true fulfilment in them. These moods urge the soul to break away from the bondage of desire and impulse, and thus become in the rudest and most undeveloped nature the prophecy and foretaste of a perfection to which we are urged to aspire.

Without trespassing further on your time in working this thought out, I ask your forbearance whilst adding a remark in my own interest. I have been more than struck whilst reading psychological treatises of the various schools at the scant reference to what are called the religious emotions. In the religious world there is nothing more spoken of than Divine grace, the secret workings of the Spirit of God, and peace, deep and ecstatic, which enters into the experience of souls reconciled to God. When, however, one opens the most

comprehensive works in psychology one finds little or no reference to these emotions and influences, which no small portion of our fellow-men assert to matter of continuous experience and a possession of all else most valuable. I do not imply that all the inner life of the believing heart is fit material for analysis or scientific treatment. No small amount must from the nature of the case remain purely subjective experience incommunicable to others. Only the man that doeth the will of God can know of the doctrine. And no doubt these incommunicable states will contain that which is fairest and most fruitful in the experience of the just, only to be realized in living emotions superior to forms of knowledge. It may not be the business of the psychologist (as such) to interpret this wealth of inner experience. But quite apart from that which is beheld by the individual in his rapture, there is that which can be communicated which is capable of becoming common property. And this affords a field for speculative interest and scientific investigation, which, for reasons I need not now discuss, has been strangely neglected.

DO SEPARATE PSYCHOLOGICAL FUNCTIONS REQUIRE SEPARATE PHYSIOLOGICAL ORGANS?

By BERNARD HOLLANDER.

THIS is a question of immense importance, and one which could not have been answered twenty years ago. If the several faculties of the mind are to depend on various organs, we must take it for granted that mind in itself is dependent on an organ, for if the several parts of a subject are to depend upon the several parts of an object, it is necessary that the subject, as a whole, is dependent on the object as a whole. What then is the object on which the mind is dependent? This is the question which we shall have to answer first.

There is no longer any doubt that mind is dependent on the brain for its manifestation. True, the various parts of the body have an influence on mental manifestation, but as all the organs of the body are in communication with the great storehouse in which all impressions are registered, and as all nervous manifestation must arise in the brain, and to it all sensations must return, we are justified in calling the brain the only organ of the mind.

The physiologist would be quite satisfied with this answer, but the philosopher at once inquires: Are there two existences, mind and

matter? or is there but one, mind or matter? If there is but one existence, say matter, what is mind then? Is it a function? Is it a force? Here is the first difficulty, but not the greatest.

As the subject in itself is dependent on the object in itself, so the various parts must depend on each other. The real question will be then: Do the various psychological functions depend on definite parts of the brain? Here is the second difficulty.

What is meant by the various psychological functions? Are the various schools of philosophy agreed as to the elements of the mind? Shall we take Comte's analysis or Professor Bain's? Is memory judgment, will, or attention, a faculty? Is it a function of a single organ? What are modes of activity, elementary and associated actions? What is the elementary faculty for talents for mechanics, mathematics, poetry? If we are to give an answer to the question whether the separate psychological functions require separate organs, we must know the elements of a quarrelsome, of a timid or affectionate disposition. Let the teacher of mental science answer these questions and then the physiologist can give him a reply, not before that.

Since the early days of Greek philosophy the intellectual faculties were located in the brain, not so the propensities and passions. Aristotle located anger in the liver. Was he wrong? Not entirely, for the passion of anger affects the liver, and certain states of the liver have an effect on the mind, causing a man to be disagreeable. Aristotle was only wrong in "locating" anger. Had he made anger "dependent" on the liver, there would be more truth in his saying. In all probability anger is caused by a certain state of a part of the brain, which is in direct communication with the liver. Though this is but a hypothesis, it will serve to show how unreasonable it is of the student of philosophy to expect from the physiologist an answer to the question "do the separate psychological functions require separate physiological organs?" without giving first a definition, what the separate functions are.

Psychological proceedings must be decomposed into their elements. We must get to know the distinct and independent faculties. We want a scientific and accurate dissection of mind and character, a demand on which Bacon already insisted. Given those independent faculties we may say they are dependent on distinct organs, assuming an organ to be a group of nerve cells with their respective fibres. Why assume this? someone will ask. My answer is, because, though some parts of the body show a very intimate connection with certain states of the mind, as for instance the heart with fear, we cannot say that fear depends on the heart. It is not the heart that acts on fear but fear that acts on the heart. Furthermore, though the organs of the body, whether in a healthy or diseased condition, influence the

mind, they are not the only factors. Outside influences act equally on the mind. Take the weather as an instance.

After having pointed out all these difficulties, let me return to the simple question "do the various faculties depend on definite parts of the brain?" or better expressed "are the elements of the mind dependent on brain centres?" This is a question which has received ever increasing attention in this century.

While Gall in 1796 tried to localise all faculties, whether complex or simple, Flourens went to the other extreme, asserting that the brain as a whole was the organ of the mind and the loss of any individual part did not affect the manifestation of any faculty. It was not until 1870, however, that positive results were achieved, with the exception of a single faculty, the faculty of articulation of speech.

Until Gall located "speech" in the lower frontal convolution, it was regarded as something placed ready made in man by nature. Yet he was unable to convince his generation, for his theory was only founded on observation. His work was continued by Bouillaud, who published in 1825 some pathological evidence, and he again was followed by the Brothers Dax. Universal recognition was, however, only granted when Broca in 1861 referred the speech centre to the lower left frontal convolution, near the Island of Reil. It is now established that "speech" may be lost almost independently of all other disturbances. It is thus shown that one element of the faculty of communicating our thoughts is dependent on a definite area. The other two elements are still under observation. Each of these factors —(1) gesture, (2) speech, and (3) writing—may be lost separately. Pathology has taught us also to distinguish between—(1) the memory of words and (2) the articulation of speech—as in the two diseases, Amnesia and Aphasia, and she has further shown that of the two factors in the faculty of writing—(1) pictorial representation by means of drawing and (2) the putting down of arbitrary symbols expressing abstract ideas—the loss of the latter is much more difficult to be repaired.

Not only does physical science teach us that "speech" is an independent faculty, but it teaches us also that "speech" is built up from different elements. The sounds we hear and the signs we read we try to retain as a means of intelligence. We have, therefore, the complicated sensations of sound and sight, which remain in our brain as forms of memory. These forms of memory may incite the articulate movements of the tongue; but in order to form ideas other elements of sensation must enter into combination. Some people have their ideas deficient, some the centres for the movements of articulation, and others the centre for the memory of words. Thus it happens that in some people the thoughts arrive quicker than they

can express them, and in others there is a stream of words expressing but one idea. Of "gestures" as a means of communicating our thoughts I shall speak later.

That the various elements of the mind have separate seats in the brain admits no longer of any doubt. All the researches made by physiologists and investigations made by pathologists since 1871 have resulted in defining distinct regions for motion and sensation. A number of German, English, and Italian physiologists experimented on the brain of animals: some by exciting a definite portion of brain and watching the movements that occur, others by destructive lesions and observing the loss of movements.

Many of the centres thus discovered are still *sub judice*, but there are a number of localisations made as to which all physiologists agree. Thus the possibility of finding organs for the various faculties is established. Twenty years ago it was thought that the various convolutions could not have different functions as they looked so much alike. George Henry Lewes (*History of Philosophy*, 4th ed., p. 433) denied the possibility of localisations, because "the convolutions of the brain are not more distinct than the several folds of a piece of velvet, and a little reflection discloses the absurdity of supposing that one portion of this velvet could be endowed with different properties from every other portion simply in virtue of its superficial position."

To-day there is no longer any doubt that this velvet-like surface of the brain is excitable in various portions, and distinct regions for the movements of muscles and limbs are defined.

Of course the question will arise: What has the movement of a muscle to do with psychology? And, indeed, the Archbishop of York, at the opening of the Church Congress at Manchester last year, was confident that all the labours of the physiologists could not make a faculty dependent on an organ. I am, to a certain extent, of the same opinion; for instance, no researches of physiologists will ever result in making "conscience" dependent on an organ, for the simple reason that even did we know the origin of conscience, we should not have the means of demonstrating the same in a number of nerve-cells. But I cannot agree with the view expressed by the Archbishop that we might succeed in damaging the instruments of the mind but not mind itself. He said, we might interpret blindness, the great injury to vision, as an indication of some injury to the brain, which we might localise and describe; but he does not take into account that the loss of the visual centre causes not only blindness but also complete loss of visual ideation. All visual memory is lost, consequently there can be no visual ideation, and thus the mind is affected. An injury to the eye may cause blindness

only, *i.e.*, loss of vision, but the destruction of the visual centre causes a loss of all the stored-up images and an incapacity of visual imagination ; it means an injury to the mind, and not only to one of its senses. His Grace must be aware that optic sensation depends not only on the formation of an image in the retina but on the visual centre being affected. The group of nerve-cells, on which alone the optic nerve reacts, is necessary to receive visual sensation to form visual recollection and ideation.

He further said : Though we do not know all the functions of the brain we know enough to declare that there were no brain-organs for the higher functions of the mind ; to say that the mind was a function of the brain would be presumptuous nonsense.

What His Grace wished to express, appears to me, is that the mind is not a function of the brain, and therefore any faculty could not be a function of some organ. I will not argue the point as to the correctness of calling mind a function, and the Archbishop may think the happiness of some people in danger were they told it was proved to be a function ; but I must declare my inability to demonstrate mind without matter, and to answer the question, which forms the title of this paper, unless the former is dependent on the latter. It would be beyond the scope of my paper to discuss what mind is, but it is my duty to explain that its faculties are dependent on brain-centres, and to determine how that dependence is constituted. Of course, no galvanic current can demonstrate directly a centre of ideation, but its effects give us the physical aspects of mental manifestation, *i.e.*, the physiological correlative of psychological actions.

If we study the outward visible signs of our mental manifestation, *i.e.*, the physical expression of our thoughts, the movements which occur during certain emotions, and which muscles and limbs are called into action, we shall find that only by exciting distinct regions of the brain can the same movements be effected.

For instance, the emotion of joy, in its physical expression, acts on the mouth exclusively by the great zygomatic muscles, drawing the corners of the mouth backwards and upwards. The upper and lower orbicular muscles may be at the same time more or less contracted and the cheeks elevated. Observing the experiments made by physiologists, we find that by excitation of a distinct area of the brain the same movements have occurred. Following the observations made by Darwin, Duchenne, Sir Chas. Bell, Piderit, and Mantegazza, we notice their agreement as to the expression of this particular emotion. I cannot explain the reason why a mental current should travel on the same lines as a physical current, nor need I give in this paper the various localisations, but one or two

more examples may serve to show the correctness of my mode of reasoning.

No acknowledged psychological system has ever recognised an elementary faculty for the desire of food and drink. This impulse was referred to the alimentary organs; yet a centre has been found which gives rise to these desires and causes, when diseased, ravenous appetite and sitophobia, certain modes of insanity. Electrical irritation of this centre in animals causes movements of the lips, tongue, cheek-pouches and jaws, phenomena which must be regarded as indications of the excitation of gustatory sensation. That there is a centre giving rise to appetite independent of the state of the alimentary organs is established, because sixty years ago it has been localised from observation in the same region, where modern physiologists located it independently, having arrived at the same result by experiment.* When observation and experiment independently arrive at the same result, we must admit the possibility of the existence of such a centre. This instinct of nutrition for the preservation of life, which incites us to the sensual enjoyment of the palate, is independent of hunger and thirst. Some men indulge rather freely in the pleasures of the table. Some animals store up food, an act which requires not only a certain state of the alimentary organs but an amount of reasoning power, which, by long habits and constant practice of generations, has become an instinctive action.

However, it is not my object to demonstrate gustatory sensation, but to show that the experiments made by physiologists demonstrate the physical side of our mental actions. What else could occur during excitation of the gustatory centre but a movement of lips, tongue, and cheeks, whether the excitation be sensation through the ordinary senses or the immediate effect of an electric current.

Without entering into a demonstration of centres of ideation, I may point out the utility of a study of the physical manifestations of mental actions, *i.e.*, the study of the expression of the emotions. An analysis of the principles of pathognomy may prove of great value to mental science. Through long habit we have learned to judge a person by his gestures almost instinctively, but it is only lately that the laws of natural mimicry—*i.e.*, the gestures, attitudes, and movements by which men and animals express their feelings—have been analysed. “Pathognomy is understood by animals as well as by men. Its language is universal. It accompanies speech, strengthens its expressions, and supplies the defects of articulate

* See *Edinburgh Phrenological Journal*, 1823, &c., and David Ferrier's *Functions of the Brain*, 1886.

language. Its laws must be understood by the engraver, painter, sculptor, actor, and poet. How could they express otherwise modesty, prudence, fear, despair, baseness, joy, anger, contempt, pride, or devotion. The animal or man has no time to deliberate on the manners in which he would make his feelings and his ideas understood by others. At the very moment when the feelings and ideas arise, they are written on the exterior in characters discernible by all the world. It is certain, therefore, that the feelings, ideas, affections, and passions are manifested by suitable expressions according to determinate and invariable laws." (Gall.)

Bacon already pointed out the advantage of a study of the form of expression. For he says the lineaments of the body disclose the disposition and inclination of the mind in general, but the motions of the countenance do not only so, but do further disclose the present humour and state of the mind or will. Fix the countenance in the pattern of a particular emotion, in a look of anger, wonder, scorn, and the emotion, whose appearance is thus indicated, will not fail to be aroused. I am not too sanguine as to the localisation of faculties, but as their physical correlative has been successfully fixed, it appears to me thoroughly established, that the separate psychological functions depend on separate physiological organs. Of course, there are all the higher intellectual operations, which do not admit of such a demonstration, not having any outward physical signs, but even they are bound to laws and depend on the conditions of certain organs, of which we are still ignorant.

It is not every faculty that admits of such easy demonstration as say—the faculty of imitation, which is so prominent in the actor and the mimic. The talent of mimicry, of imitating the gestures of other people, is one that is born with man, and though it can be improved, it is not to be acquired. It can be observed in idiots, in madmen, in deaf and dumb people, in people who have never received the slightest instruction. From the biographies of eminent actors, we can learn that the majority of them was not intended for that profession at all, but exhibited a talent for it from childhood.

The mimic must have a highly developed facial nerve-centre, for the imitation of the gestures by means of the facial muscles. The actor requires also a highly developed speech-centre for the imitation of the voice. And what does experimental physiology teach us, but that the two are intimately connected, their close relation being noted by many experimenters.*

* See Exner, *Localisation der Functionen in der Grosshirnrinde des Menschen*, 1881, p. 56, and Ferrier, *op. cit.*, p. 359.

But it is not alone the quality of an organ which influences the mental manifestation, but also the quantity. We can observe in osmatics animals larger olfactory bulbs and tracts, than in the anomastics, in which the sense of smell is feebly developed. The relation of size and intellectual power is a constant fact in the animal kingdom. The difference of size of brain is so great as to affect the shape of the skull, so that men can determine, from an examination of the brain-case only, to what species its owner belonged ; or, in case of a human skull, from what race, even nation, it came. What meaning has craniology, as understood by anatomists and anthropologists, unless the construction of the skull is remarkably proportionate to the whole-anthropological organisation in brutes and in man. Those accidental secondary prominences refer only to comparatively rare abnormalities, as every scientific man, who has studied the subject, will admit. We know, that not only has every race but every nation a certain type of skull. Craniologists even distinguish between male and female skulls. On the other hand, we know that the national character varies. If then the skull-formation and character vary in accordance, there must be a division of functions in the brain, though we cannot demonstrate them as yet.

The difference in national character is often attributed to the varieties of custom, habits and laws. But that means mistaking the effect for a cause. We have heard lately a good deal of the want of taste in the English race. Sir Frederic Leighton dwelt on it in his presidential address to the Art Congress last year. But though the nation is not wanting in efforts to raise its standard of taste, it does not succeed all at once, because it cannot change its organisation. It is only by long habit and by constant use of a faculty through some generations, that the same becomes innate.

Referring to the size as a measurement of power, other conditions being equal, we notice that the higher the animal, the more progressive will be the cerebral hemispheres. The convolutions will increase in size, number, and complexity ; they owe their origin to the unequal growth of some parts of the cortex. Surely this fact of comparative anatomy must have a purpose. The increase of a distinct part of the brain must be followed by a correspondingly larger manifestation of some faculty, just as we have observed in the osmatics increased olfactory bulbs and tracts going together with a superior sense of smell.

Observe the successive development of the mind in infants. It goes in harmony with the successive development of the various parts of the brain. The brain-case at first assumes a roundness compared with the square appearance of later periods. It is also devoid of those ups and downs, protuberances and depressions, which do not

merely depend on the fat underlying the skin, but are due to the shape of the bone. As to the mental development, it is nothing new that the child commences to observe the existence of objects, without distinguishing many. Later on the child learns to distinguish the quality of objects, while yet it has no idea of distance, size, and weight. In the same manner the language progresses. At first, sounds are repeated like papa, puff-puff, &c., and only after long training the child can be brought to understand the expressions of abstract ideas.

Thus we see that we can learn more from an analysis of the uncultivated than of the cultivated mind. However, we shall find some difficulty in drawing a line between the various minds, say, the mind of a civilised man and the mind of a savage. They can only be separated in idea, and not in reality. Both are the expressions of their own organisation, and a civilised man sometimes acts like a savage. The reason for this dis-harmony lies in the irregular development of the nerve-centres.

It is with the senses, whose nature we know most perfectly, that we are best enabled to demonstrate brain-centres, *i.e.*, that different parts of the brain have different functions. Of the visual centre I have spoken. The exact localisation of the auditory is still under dispute, but so much is certain that musical genius is not dependent on a highly organised auditory apparatus in the first instance, but on a greatly developed brain-centre. The same may be said of the powers of a painter. To distinguish between the shades of colour depends primarily on the brain-centre. Enough observations have been made to determine that men may have excellent hearing, and yet not be able to distinguish two sounds but an octave apart, and in the same way, that a man may have perfect sight and yet be colour blind.

If there were no special centres how could we explain the transmission of peculiarities of character from parent to child. Peculiarities of character are no more than modes of faculties, and they could not be transmitted unless we had also a peculiarity of structure in the organ. Instinct is innate; it is anterior to all experience. Were it independent of an organ, of a nerve-centre, how should we explain its transmission? All faculties are acquired through adaptation; they are made firm through habit and transferred from generation to generation by heredity. At first, consciousness is necessary, afterwards it is not. Have we or have we not any ideas which are antecedent and independent of experience? This is a question which has been asked for centuries. Each individual has ideas antecedent to and independent of experience. They are inherited from his ancestors. If we go back far enough, however, we

shall arrive at a stage where each individual had to acquire his ideas by experience. The mind is not a *tabula rasa*, as Aristotle said, on which the senses and experience write, but it contains, as Plato said, certain notions, which need only external objects and certain conditions to awaken them.

Man has therefore to thank his parents not only for the fortunes they bequeath him, but also for his organisation. True, his organisation wants training. He cannot make use of it immediately after birth as animals can. Some men inherit such a defective organisation that they never acquire a proper reasoning power. Not the best training imaginable will make a Socrates of an average costermonger, though the latter, compared with his own surroundings, may appear intellectual. This is the great argument against equality. Socialism, as meaning the improvement of the welfare of the people, should have our sincerest consideration, but in its perverted practice, as meaning the doctrine of equality, we must reject it.

Man is born with certain predispositions, and whatever his education or experience may be, they will not alter them, though they may modify them. The question is only, What are the fundamental dispositions? Man, viewed in his present state, has such a complex psychical nature that makes it extremely difficult to arrive at the elements of his character, and I do not know of any one who has ever made an attempt to establish a science of character.

Men with an inherited tendency to music, poetry, or painting advance in their line with a mathematical precision. Of course surrounding conditions have an influence, but they do not explain the origin of genius. No great poet has ever explained the process by which he made his poems. Some time ago some one asked the great French dramatists how they accomplished their compositions, but the sum total of all the answers were vague and uncertain, and more amusing than instructive. Most of them said, to write a lasting drama, genius was required, and those who did not say so showed by the description of their proceedings that they were possessed by it. Thus Eugène Labiche related that when he had no idea he bit his finger-nails and invoked Providence. When he had an idea he still invoked Providence, but with less fervour, because he thought he could get on alone. This was very ungrateful, but exceedingly human. In one respect the interrogation proved instructive. It showed that authors write according to their temperaments, and to write a merry piece, good health was required. In other words, authors write according to their organisation; as the state of their organisation, so will be their work.

Genius is almost in every instance partial, and limited to the exaltation of a few faculties, which it could not be were the organ of

mind single. Besides, genius most frequently appears at an early age, and no one will deny that it is a gift of Nature.

What is the difference between talent and genius? The one is conscious of its powers, and knows "how" and "why" it arrived at certain conclusions; the other neither knows "how" nor "why." Talent discovers and reproduces; genius invents and creates. Talent has its definite aims; genius has none. Talent reasons logically; so does genius. But ordinary people cannot always see the logic; they cannot always perceive the link that connects the works of the genius with previous productions. The works of genius are therefore seldom well received by their own generation, and often not understood even by the next. People laughed at Wagner's "Music-Dramas," and at his "Leitmotives," but gradually they come to understand that his dramas are products of art built upon a system; not like so many operas—a mere string of airs without any connection to each other.

As already remarked, Genius owes his existence to the exaltation of some particular sense or intellectual faculty. In other respects he is an ordinary mortal, especially when he is free from inspiration. It is a well-known fact that men of genius are often vain. Heine says, "Man is the vainest of animals, and the poet is the vainest of men." He probably referred to himself. Aristotle thought men owed their greatness to a rush of blood to the head, and attributed the greatness of the intellectual powers of Socrates, Empedocles, and Plato, to physical agencies. No doubt the circulation of the blood in the brain is of the greatest importance to the manifestation of the mind, and any irregularity in its working has an immediate effect on mental manifestation. Plato considered madness a benefit conferred by the gods, for do not the prophets of Delphos and Dodona great services when delirious, while they are of no use when free from excitement. More explicit still is Democritos: "Excludit sanos Helicone poetas."

What we want to know is, what are the causes of character? In what elementary quality does a genius excel? We want to know the laws of development and organisation of impulses, the susceptibility to motive. What are the laws by which ambition, pride, or envy, selfishness or sympathy, exert their influence on man. For example, it would be interesting to study the motive of Mr. Gladstone's conversion to Home Rule. His opponents attribute it to the love of power, which he wishes to retain at any price. The love of power, according to their opinion, is the predominating faculty in Mr. Gladstone's organisation. His friends again say it is sympathy, that is the leading feature in Mr. Gladstone's character. He cannot bear to see the sufferings of people, and this was his motive for

interfering in the affairs of Bulgaria, Greece, and Italy. Would it not be wise to analyse the character of eminent men?

The strength and arrangement of the impulses differ in every man; but if we look at history we shall find that the same impulses guided men a thousand years ago which guide them to-day, and if we look at nations we find that the majority is guided by a common impulse, which, together with others, forms the national character.

Why should genius be so closely allied to madness? Why does a change of brain cause a change of character? No doubt because the impulses which form the elements of character depend on certain nerve-centres. The power of manifestation of the faculties varies with every change in the state of the material organs, and we see faculties constantly disturbed by injuries to the brain. Thus we can account for an insane delusion which is limited. Its cause lies in a diseased centre of ideation. Many of the acts of the insane are no more than the convulsive expression of disordered nerve-centres. It is to be regretted that we are still so ignorant of the disorders of man's nature. What do we know of insanity? Very little, and almost nothing of the stages ascending to it. How many crimes are committed during the early and unrecognised stages preliminary to insanity.

No one will to-day deny that we are born with certain predispositions to our future character. No one will assert that all men come into the world alike. A little observation shows us that some men have a decided capacity for certain pursuits apart from all training.

What do we know of the dispositions of a criminal? What do we know of criminal nature? How many of those who speak of moral responsibility have studied pathology? In some books the importance is pointed out of an enquiry into the laws of union between mind and body, and into the influence they have on one another. Yet in practical life, when the responsibility of an offender is in question, as little investigation is made as if the relations had no actual existence. Surely a man "whose face is deformed, who has a badly-formed angular head, who is deficient in vital energy, who is sluggish, and whose intellect is defective, who owes his criminal inclination to the inherited tendency of his forefathers and to the surroundings of a thieves' quarter, who is ignorant, as the result of neglect, and has perhaps in addition some bodily disease,"* cannot be, from a philosophical point of view, as responsible as a healthy individual who kills from a wounded sense of honour or from a feeling of superior strength, who appropriates other people's goods from a disinclination to regular work, or who extracts money from the

* Maudsley: *Responsibility in Mental Disease*.

pockets of the ignorant by starting bogus companies or some other deceiving enterprise. Yet the description given fits the habitual criminal, and it is he who is the greatest nuisance to the authorities and the Government's purse, for he returns regularly to the four walls which have become by prescription his home.

Though I am fully aware that Society must protect herself against all offenders and does not admit any degree of responsibility, but punishes according to the nature of the offence, I appeal to the student of mental science to study criminal nature. He has nothing to do with the prevention of crime, but he ought to know its nature.

Of course, if our faculties were independent of physiological organs there could be no question of responsibility, but they are not independent. Unfortunately, the bad as well as the good dispositions can be transmitted from parent to child, and as the true artist or poet so is the true criminal born. We find in criminals the degree of controlling power deficient, as if the faculties had lost their equilibrium. But if the separate psychological functions did not require separate physiological organs we should not find the will-power limited.

As pointed out, I have no desire to discuss criminal responsibility. All I wish to demonstrate is the dependence of the psychological functions on physiological organs. From what I have described it is evident that they are dependent. But when we come to the details, that is, to the localisation of centres of ideation, it is equally evident that our present means do not suffice to demonstrate them. I have shown the only mode that I think possible by which we may discover the seat of the psychological functions. To expect that physiologists will succeed to locate any faculty by means of the galvanic current would be Utopian. Yet that was the object which Hitzig, Fritsch, and Ferrier had in view when they experimented on the brain-surface. No physical operation will ever demonstrate, say, the centre for "sympathy," a faculty so predominant in some men and so deficient in others. All that can be expected and all that the experimental physiologists have effected is certain movements. On the other hand, I cannot agree with those who hold that, because the physiologists of to-day do not succeed in directly demonstrating centres of ideation that there are none. The fact is, that their appliances are insufficient, and their mode of experimenting will never succeed unless they can invest the galvanic current with supernatural powers. Neither do I agree with those pathologists who hold that, as the loss or disease of a certain part of the brain in their patients does not cause any visible defect in the manifestation of the higher psychological functions, the theory of the localisation of the faculties has no foundation.

Such an idea presumes that a complex faculty can be the property of a group of nerve-cells, while in reality, as I have pointed out frequently in the course of this paper, only the elements which constitute a disposition can reside there, and may be called into action when the necessary conditions arise. Man, who is at the top of the animal world, and who has no recollection as to the length of his existence, has such a complex organisation that it is with the greatest difficulty that we analyse his nature. What we believe to be the element of his character may be still far from it. Even chemistry, a science which admits of comparatively easy demonstration, is not sure whether its assumed elements are such. What then with man whose origin is so obscure. How difficult is the tracing of his mental development.

Without examination of the progressive stages of the mind in the animal world, I fear we shall never come to see the nature of each faculty.

In conclusion, let me repeat some of the views which I have expressed in this paper. To understand Human Nature we must study physiology. Speculations not based on physical science must be futile. Though some of my statements might not be "positive" in the sense of Comte, they are based on scientific researches and are open to criticism.

I hold that man is born with determined pre-dispositions, that he does not acquire them after birth. He may be born for good or evil, or with a mixture of both. He may modify his nature but he cannot completely alter it. Without physiological organs psychological functions are impossible. That the elementary dispositions depend on the organisation there can be no doubt, otherwise they would not be transmitted from generation to generation, nor would there be a national character. In other words, men are endowed to a certain degree with the qualities essential to human nature and the differences observable are not due to the influence of accidental causes after birth. The accidental causes may have a modifying influence but they will not destroy the original quality. The impressions on the external senses are only in a degree the source of our ideas. We are not agreed as to the elements of the mind, neither as to what constitutes an independent faculty. I consider memory to be the property of the whole brain and not dependent on any particular nerve-centre. One may have a perfect memory for music and a bad memory for names, an indifferent one for figures, and an excellent one for faces. Neither do I think that judgment requires a separate physiological organ. A painter's judgment on pictures is more valuable to me than that of a mathematician. Imagination is not dependent on any organ, it exists when a faculty is greatly exalted. The imaginative powers of a

musician differ from those of a poet. There can be no individual centre for it.

An anatomical demonstration of nerve-centres I hold to be impossible. The convolutions do not show any anatomical divisions so that centres can be pointed out. Yet, considering the brain as the organ of thought, it cannot be one centre, but must be a congeries of centres to make the great variety and diversity of talents possible, which distinguish the individuals of the same species.

I see nothing repulsive in the idea that the faculties should be dependent on nerve-centres. Only such men could object to the idea who imagine that a centre gives an impulse and necessitates an action, but nothing of the kind has been as yet demonstrated. If a man can inherit weak or strong lungs, little or powerful limbs, why should the brain be made an exception? Everybody brings with him into the world certain tendencies and characteristics derived from his parents and ancestors, and thus his life is to a certain extent predetermined. I repeat "to a certain extent" because Human Nature can be modified and is modified principally by three factors:—(1) by external circumstances, as the surroundings, soil, climate, wealth, and the society in which man lives; (2) by education, that is the training of the mind, and (3) by experience.

No system or theory of the mind could be more than a speculation as long as mind was thought to be a substance independent of matter. Recent researches prove, however, not only the alliance between mind and body, but also the fact that nerve-centres are the condition for the manifestation of thought, and that separate psychological functions require separate physiological organs.

SYMPOSIUM—WHAT TAKES PLACE IN VOLUNTARY ACTION?

I.—*By J. S. MANN, Fellow and Lecturer of Trinity College, Oxford.*

IN philosophical discussion, especially where it verges on moral philosophy, the first thing to be done is to define your terms. But the term "voluntary action" has numerous meanings, and I am not quite sure how much it may here be taken to include. There is (1) the meaning assigned to it by Aristotle and moral philosophers generally, "that action which originates with the agent himself, he having knowledge of the circumstances with which it is concerned." Here the term is confined to the conscious action of the rational

agent. There is (2) the wider use of ordinary empirical psychology, conscious action [whether wholly determined by causes outside the agent or containing an element contributed by himself and not reducible under the law of causation], as contrasted with automatic, purely reflex action. This (leaving out the metaphysical question of determinism) would include all action of human beings and the higher animals other than that which is merely reflex. And there is the wider use of the term by Wundt, which, in fact, covers all action that is conscious at all, and includes such action in all beings down to the Protozoa. Now it is, I presume, with the second sense that we are now primarily concerned. The first—apart from metaphysical questions as to the Ego and the Reason—may be subsumed under the second, and so described as not to raise these metaphysical questions. What I hope to do is to point out the connection between the second and the third, following Wundt, so as to get some kind of basis for the subsequent discussion.

Of the descriptions of voluntary action, I will take Professor Bain's ("Mental and Moral Science," p. 318 *seq.*). The elements of voluntary action are spontaneous movement and perception. The infant learns by experience that certain spontaneous movements relieve pain; the representation of the relief is associated with that of the movement. The pain suggests the relief, the relief suggests the movement; and so the movement of relief, rather than any other, takes place. So soon as the relief begins to be attained, the effort towards it is further stimulated by the pleasure arising from its partial attainment; while efforts which prove unsuccessful are discouraged by the pain they occasion, this action being merely physical, and standing quite apart from the co-operation of conscious effort. This, I think, is the simplest possible description of the elementary process of volition as conceived from the ordinary Empiricist standpoint.

In a more developed stage of consciousness an end is desired in consequence of previous experience. The image of the end sets up an uneasiness, to use Locke's term—an uneasiness which, though commonly called desire, is really incipient and fragmentary will. Ideas associated with the end are called up until we reach one associated with present motor action; then the action follows. In a more complex case there are many such series of ideas interfering at various points with each other's realisation. One series prevails, frequently (I think the Empiricist must admit) for no precisely assignable reason; we can say, "The strongest motive prevails," and assign reasons as to why it may have been the strongest, but there is no precise account possible, and I think I may add, our belief in the possibility of such an account will probably decrease with the increase of our psychological knowledge.

I think, then, we may take it as the Empiricist view that—

- (1) The germ of volition is in spontaneity of nervous action;
- (2) The process of volition is the result of the association of experiences of the results of these spontaneous motor-actions with relief from pain or attainment of pleasure—the latter, as Locke held, working through the former;
- (3) The “desire” which is the beginning of volition—the “wish for the end” which precedes choice of the means—is itself incipient and fragmentary will, “spontaneity.” At least Professor Bain, as I understand his paper in our Symposium of last year, would extend the term “Will” so as to cover the preliminary desire.

But the accounts vary in the stress laid on “spontaneity.” In no case does the Empiricist regard it as uncaused or “*causa sui*,” “spontaneous,” in the popular sense. He regards its action simply as a case of causation, in which he declines to assign the precise antecedent. In some accounts—those treated of by Mr. G. H. Lewes in his chapters on animal automatism (*Physical Basis of Mind*)—we have not even this hesitation. The centrally-initiated “spontaneous” action is regarded not only as set up independently of consciousness by external stimuli, but as due simply to these, plus previously stored-up energy received from without; and consciousness is a mere spectator which has nothing to do with the action, and which would, indeed, more properly be described as an incidental bye-product in certain complex cases of the transformation of energy. In ordinary Empiricist psychology, however, consciousness is itself treated as one of the links in the chain of causation—a factor along with others, but determined equally with them by external antecedents.

Now, I think there is this difficulty in accepting the automatists' view of the case, that, as Wundt has pointed out, our notion of force is derived from our consciousness of voluntary action. We see changes taking place, and we refer them to “powers” or “forces” which we conceive as analogous to the activity of which we are conscious in ourselves. We have no right to do so, but we do it all the same, and we are not justified in interpreting this ultimate fact of consciousness—the consciousness of exertion of effort—by the less known facts of changes in bodies, made up as they are largely of inferences. It is the Materialist's error in another form; we find that mental changes go along with certain material changes, but we are not entitled to say that the mental changes are only a mode of the material, because the material changes themselves are ultimately

reducible to expression in terms of mind; they are "phenomena," made up of sensations and rudimentary inferences. So we are not entitled to resolve an ultimate fact of consciousness—voluntary action—into material changes which are themselves explained only by it. This view, then, may be dismissed. But the ordinary Empiricist statement is open to the objection that Wundt has pointed out in all associationist psychology, that it makes no distinction between association and apperception. The associations that we know to be *only* associations, with no voluntary co-operation on our part—or rather, as I suppose Wundt would maintain, with an infinitesimal amount of it, the associations I mean experienced in a dream, or an idle hour, or in some abnormal bodily states—"run on" indefinitely; and we are not conscious of any active reaction on any one of the presentations; they come up from the background of sub-consciousness, we usually cannot tell how. And in proportion as "the will" in the ordinary sense is weak, so these associations are more lawless (apparently) and erratic. But in willing we are conscious of an active-reaction; we hold and fix presentations; we follow up associated presentations and construct the series meant to be realised in action. Still more so in that complex but imperfect volition we call "desire." There is that kind of process of connecting something among the mass of our presentations with the end and the motor-action, that insistence on the end and distinction of it from other ends which the *a priori* schools would call "making the end *my* end," and distinguishing it from the "mere solicitations," as Professor T. H. Green called them, which are present to consciousness, but not acted upon. This reaction, noticeable especially in rational voluntary action (*προαιρέσις*), exists also in any voluntary action—that is, in any motor-action accompanied by consciousness. It is here that the "Will" of Professor Bain connects with the "Will" of Wundt—which is Professor Bain's "Spontaneity" acting in perception as well as in muscular action.

To Wundt all distinct perception implies a reaction on the perceptive organs concerned, of some central organ not further specifiable at present—the organ of apperception. This reaction takes an assignable and measurable time, and raises the presentation which is distinctly perceived, to that degree of distinctness which separates it from the vast background of presentations just above the "liminal intensity," and from the vaster multitude of those whose intensity is infinitesimal, and which are for practical purposes out of consciousness altogether. It results in a rudimentary judgment, or at any rate in a recognition of the relation between two terms; the perceived presentation, and some part of the remaining content of consciousness, which latter we may summarise as either "the

"Ego" or "objective reality." And it is this which distinguishes its product from the results of association, these being, however, the material on which it works. Voluntary action in short, in its simplest form, is conscious reaction on presentations which set up muscular action. Such conscious reaction is, however, known by experiment to take place in all (ordinarily so-called) perception: and we may therefore regard the former as only a peculiar case of the latter. That "concentration of consciousness on a desired object," which Professor Sorley regarded as a characteristic of desire and will in his paper in our Symposium last year, is in fact only a strong form of the reaction which is apperception.

Now this "spontaneity" or "reaction" is itself excited by some external cause, and it adds something to the presentation on which it acts. It raises the intensity of this latter at the expense, it may be, of alternative presentations, which are parts of alternative courses of action. Does this necessarily imply the Determinist doctrine? I confess I do not think that it does. I cannot see that the energy which is assigned to the organ of apperception must necessarily either come out of food or be transmitted by inheritance. Nor can I see that the "Conservation of Energy" even in the material world is anything more than a convenient mode of expressing an equivalence of quantity which having been found to hold good in a great many cases, is inferred to be valid universally. And as we do not know and cannot conceive the relation between the two sides—material and mental—of the one world which it is now the fashion to posit, we are surely not compelled to argue, Because the sum of energy in the physical world is constant, therefore the sum of whatever corresponds to it in the mental world is constant too. In short, if anyone likes to revive the ancient notion of an objectively unpredictable element in the physical world, I do not see how his statement can be distinctly disproved; still less can it be disproved about the mental world, about which our knowledge is so very much less. In the physical world there is no particular reason for assuming such an element (though I believe the possibility of its presence has been suggested by mathematicians)*; in the mental world there are more reasons—the (apparent) testimony of consciousness, the requirements of moral theory, the absence of evidence of any precise dependence of mental force on food, race, health, or other physical causes. In the obscurity of consciousness below the "liminal intensity," and in the almost equal obscurity which surrounds the "organ of apperception," there is plenty of room

* See a paper by M. Janet in the *Contemporary Review*, 1878.

for a self-determining will if other reasons make the hypothesis desirable.

But there is no evidence that there is such a will in the sense of Kant or Professor T. H. Green: we can scarcely find it in the infant, much less in the zoophyte, or the infusorium. There is evidence that there is something which reacts, which is made to react by external causes, though not deriving its force from them, nor—so far as we yet know—from assignable physical sources altogether if at all, and the mode of whose reaction at any given time is certainly unpredictable practically, possibly unpredictable ideally. Out of many and complicated reactions there grows up what we call "the Ego," and as the Ego grows its action comes to be more and more definite, coherent, and predictable. This primitive reaction, in short, seems to me the ultimate matter, the "Urstoff" of the Ego; so that moral psychology may perhaps return to the position of Aristotle; to whom the moral agent, at first indeterminate and with mere tendencies and capacities, gradually converts those tendencies and capacities into habits, and makes his action increasingly — though never entirely — regular, predictable, and rational.

II.—*By PASCO DAPHNE, LL.B.*

WHAT is voluntary action for me? How do I analyse my notion of it?

The qualification "Voluntary" seems to involve the notion of a contrary, "Involuntary action," and these two to involve the neutral unqualified notion of "Action" merely.

Perhaps, therefore, we shall find in "action" pure and simple some central or root-notion, where name and thing meet in our experience in their simplest form; and then in settling what *that* is for us, we may get, at all events, at a notion what for us (for our consciousness) takes place in "action."

Now, what is "action" for us (as object thought of) in its simplest shape? I think the root-notion is that of a physical change, conditioned in part doubtless upon other physical changes, but differing from all other physical changes in *this*, viz., that we assume a condition *sine qua non*, which is not known to be physical, and which indeed is assumed *not to be* physical, i.e., in ordinary parlance, "a will."

The simplest case is movement of the immediate physical surroundings we are most conscious of, i.e., of some part of our body, which movement we consider in retrospect as mainly, if not entirely,

conditioned upon an exercise of intelligent *will*, a choice made by the "self" (the consciousness-in-continuation) which always escapes us in analysis and investigation, but whose presence we cannot help assuming and affirming in practice; the somewhat which supplies the condition without which, either explicitly or implicitly affirmed, we are absolutely rudderless. This notion, which each of us has of a connection between the exercise of choice in his own consciousness and its result, is carried over naturally and legitimately enough to similar events which are accounted for, and can only be accounted for, by assuming the existence of a "self" with similar attributes conditioning the changes of like physical bodies, *i.e.*, our fellow-men.

Now, if this be true—and I think it is—"Action" and "Voluntary Action" are synonymous terms. *Voluntary* neither adds to nor subtracts from the root-notion, but it is involved in it.

This, however, deals with action in its root form (notion and word) merely.

The name is carried over, and with it, implicitly the notion (though in what order I do not pretend to say) to the results of what we call "purely physical conditions," as when we speak of chemical agents and re-agents, the action of the ice on rocks, of a lever on the weight moved, and so on. Here, looking at similarity in practical effect, ordinary language carried over the word and ordinary thought at one time, the root-notion that all changes in the physical world were conditioned upon a "self," a *choosing* self, resident in some of the physical conditions, and similar in its essence to the choosing self, involved in our notions of our own conscious acts. In using the word in this connection, however, the student of physical science now consciously and of purpose abstracts from this root-notion, and so takes the word as practically synonymous with "resultant," of physical conditions abstracted from all else, *i.e.*, Action, with Agent thrown out of account.

This is doubtless legitimate, if the abstraction is recognised and acknowledged, but it is well to keep ourselves reminded that the condition *sine qua non* of all such phenomena, whatever name we choose to give it, has escaped from the analysis just as does the equally indispensable "self" from the analysis of our own voluntary actions.

And now having by this abstraction constituted an apparently *involuntary* or *non-voluntary* action (an action without an Agent), arises the necessity for tacking on the word "voluntary" to restore the mutilated notion, and express "action-cum-Agent" when that is intended.

Before saying the few words I have to say on the process of Voluntary Action, it may be as well to notice two or three connections

in which the expression "Involuntary Action" is frequently used, with more show of apparent reason, e.g., sleep-walking, a start of surprise and its consequences, a fall over an obstacle, or consequent on weakness; also movements resulting from real physical compulsion, as where one man is driven against a second by a push from a third (where the "action" may be really that of the third man).

All of these, however, will on examination be seen to be cases of either (a) Events regarded as governed by purely physical conditions in which (though the body moved is that usually contemplated as moving in connection with the conscious choice of the individual said to act involuntarily) no such conscious choice of his intervenes; or (b) Actions in the proper sense of the word, though the agent fails to recall the share which choice played in the conditioning.

I need scarcely say that one kind of Action, sometimes spoken of as "involuntary" (for example, when the traveller with a pistol at his head, gives up his purse on demand), is really voluntary action, *action* in the strict sense of the word. Personal, conscious choice is known to be a factor in it, the thing is done *rather than* that a pretty well understood alternative should be suffered.

Voluntary *inaction*, the other apparent contrary of voluntary action, is practically only one case of Action. Conscious choice is considered present as a condition, and the negation is understood, not of action generally but as relative only to a particular content then in consciousness.

And now what takes place in Action—Voluntary Action?

I can say nothing of the physiological side of the question, of the changes in nerve and muscle, bone and sinew which are involved, save that which is obvious, viz., that we are conscious of movements in our limbs consequent on impulses arising in the practically inscrutable "self," i.e., in consciousness.

The physical movements involved may either be few and immediate (as when I merely turn my head towards the thing I wish to see), or they may consist of a series more or less complicated, and affecting both my immediate and constant physical relations and more distant and intermittent ones; both my own organism and portions of its environment.

What they will be depends on the nearness or remoteness of the object, and the extent of our knowledge (stored up experience) of the relevancy of intervening movements.

Though we can none of us remember the first voluntary act of our lives, or what were its conditions, it is not difficult to build up a fairly holding theory of the experience. It is easy to imagine that the voluntary act of the baby nestling up to its mother, is the result of an experience of a satisfactory sensation resulting on the contact pre-

viously brought about by the action of the mother, and a dim perception of a possibly accidental discovery that unaimed movement of its own sometimes brought about the satisfactory contact. Hence might well arise as the result of many such experiences, that a movement of the head brought the desired object into sight and a subsequent movement of the body in that direction brought about contact; or perhaps the earlier experience would be the tactful one. Here might easily be the genesis *for the individual* of the notion that desire motion towards, attainment, satisfaction formed a practically invariable series, out of which one might elaborate a whole theory of "purpose."

But what takes place in our actual consciousness? What is voluntary action *for us* as object thought of?

Assuming that the names given to the processes of thought, will, and movement are understood to be names of *processes* and not of things, there does not seem to be much room for mistake in following pretty nearly the order usually given.

(1) Attention to a presentation or representation of something involved in immediately previous experiences.

(2) *Desire* for or *Aversion* from one of them, at all events, choice of one of them, choice at the lowest between movement and repose.

(3) And this is a stage in the process (which is more or less distinct according as the desire and satisfaction are novel or familiar in kind) of representation of similar or analogous desires or aversions, and of the physical movements by which they were satisfied, *i.e.*, a recollection of previous experiences, and perhaps a comparison of them *inter se*.

(4) Then again, choice among the possible physical movements represented in consciousness of the movement, or the series of movements calculated on the result of the previous experiences as adapted to give effect to the desire or aversion.

(5) Perception of the physical movements chosen and perhaps of the strain on the organism caused by the production.

(6) These physical movements either satisfy the desire or aversion (if they are calculated with due attention to all the circumstances and conditions) or *fail* to satisfy it (if material circumstances or conditions are ignored). And this satisfaction or failure in its turn becomes a content of consciousness, and a condition of some other and succeeding state of it.

But the chasm between the world of thought (the presence in consciousness of attention, desire, a physical movement and its result, satisfaction, or failure), and the world of matter (the genesis and history of the nerve and muscle movements themselves) remains unbridged here as elsewhere, and how or why attention and desire should

come to be expressed and satisfied in nerve and muscle movement, we do not know.

Of states of consciousness not involving recognised physical change, I have taken no account. Attention to, comparison of, and choice among, previous states of consciousness no doubt are often voluntary proceedings, but I think we can hardly, without straining language a little, call a process of reasoning "an action" however much the individual consciousness may be alert in the selection of the objects for attention. If we do so call it, we cannot, I think, describe it in such terms that it can be co-ordinated with the actions involving physical change or movement, with which only I have attempted to deal.

III.—*By BERNARD BOSANQUET, late Fellow and Lecturer of University College, Oxford; Vice-President.*

I IMAGINE that the question proposed is purely psychological, but as the metaphysical problem of Determinism has been touched upon, I feel bound to refer to it before the close of my paper.

But I will begin by trying to state and discuss the psychological question in my own way, while indicating points of contact with Mr. Mann's treatment. I regret that I am obliged to write my paper without having had the advantage of reading Mr. Daphne's paper, which, however, I hope to comment on at the close of my remarks.

I do not claim, any more than Mr. Mann claims, to be able to explain why certain ideas or sets of ideas predominate in the mind to the entire or partial exclusion of others. But I think—and here I do not suppose that he would disagree with me—that if we could either reduce voluntary action to the predominance of ideas, or state a definite distinction between it and the mere predominance of ideas, we should have made a step in the psychological theory of volition.*

I follow, on the whole, Mr. Mann's first paragraph as to the range and differences of voluntary action; only I am not sure whether in the third sense, in which voluntary action covers all conscious action, it must therefore be taken to cover some reflex action. I suppose that it is possible to be conscious of reflex action, as of breathing, for example; though whether the reflex action of

* In what follows I have drawn largely on Mr. Bradley, *Mind*, vol. xiii. 1.

which we are thus conscious is to be called conscious action seems to me a difficulty. It might also be suggested that some voluntary action is hardly conscious action, as, sometimes, walking or standing.

Then, omitting for the present to speak of spontaneity, I will go to the point at which in the Empiricist account before us the process of volition begins as such, and as distinct from what is merely its germ, viz., the point at which there is association of mental elements with each other, or reproduction of one mental element by another. I accept association as the name of an undeniable fact, but I do not accept what I understand to be the associationist psychology; and it is necessary to mention this, because I wish to identify the mind with its contents, and yet not to admit that it is reducible to a series or collection of impressions or images.

The question for me, therefore, is, How far, in the simplest associative mental stage, before the development of the *systematic* will, or after its destruction, can a distinction be drawn between voluntary action and the course of impressions, ideas, and feelings?

There is certainly, *prima facie*, some distinction, though it is less than might be supposed.

First, there are two sets of considerations which tend to bring these phenomena under one class.

(1.) To begin with, no very thorough distinction can be founded upon the special conditions that are necessary to make an idea pass into bodily action. Whatever these conditions may be, there is great reason to suppose that every idea as such possesses them in some degree—that is to say, has an associated aspect by which, if not neutralised, it will produce bodily action. This view is based both on general considerations and on observation of minds in which the systematic will is in abeyance. The infinitive used as imperative is a curious illustration of this tendency.

(2.) Again, I greatly doubt whether voluntary action can be restricted to the province of motor action, or even to that of bodily action. It might be possible to explain as motor action some cases which Mr. Bradley has adduced as cases of bodily voluntary action distinct from motor action. But I do not see how we are to get rid of the case of negative voluntary action which I am glad that Mr. Daphne has mentioned, in which intentional abstinence from motor action produces decisive and desired results. The positive importance of such action increases with the complication of duties and relations, as the positive importance of logical negation increases with the complication of theoretical relations. By not answering a letter you may ruin a man in fortune or in character. It might be said that the other acts which fill up your time in place of writing

the letter are the bodily effects which constitute the voluntary action in such a case, but I do not think that this would be satisfactory.

And this difficulty may be extended to the control of the associational or reproductive process itself. If, as has been maintained, the course of ideas is subject to volitional control, then, though that volitional control would seem to be simply the course taken by the ideas, it appears inevitable to set down the whole process as a continuous voluntary act. This is less paradoxical if we bear in mind that we are not now discussing cases in which the systematic will is developed and operative; we are only asking whether in the cases before us the course of ideas is all the Will that there is. We must not think of it as *ipso facto* disparaged, like the distracting associations in our own minds, by contrast with systematic purposes.

Thus it is not at all easy to maintain a fundamental distinction between voluntary action and the course of ideas in a mind below the level of systematic Will.

But, secondly, there are considerations which support the *prima facie* appearance of such a distinction.

It seems slovenly in theory to make no difference between ideas and feelings which do not result in outward bodily manifestations, whether muscular or non-muscular, and ideas and feelings which do so manifest themselves, although we must grant, if we are strictly cross-examined upon the phrase "outward bodily manifestations," that it is not easy to lay down a demarcation between the manifestations and any physical states which may be the concomitants of psychical states, or the results of such concomitants. But if we take the phrase "outward manifestations" as referring solely to motor action, or to bodily action as external as motor action—crying, for example—then we *must* admit that many, or most, ideas and feelings, however capable of leading to action, do not, in the struggle for existence, succeed in thus working out their bodily tendencies. These mental elements must be, at least provisionally, distinguished from voluntary action.

Theoretical ideas, which hardly exist at any rate for merely associative minds, must be taken, I think, as a case of the ideas just alluded to, viz., not as destitute of motor tendencies, but as having motor tendencies which are easily crushed out. Descriptive and imitative impulses must be taken as elements of the ideas which suggest them, and I do not believe that any conceptions, however theoretical, are wholly devoid of these motor instincts.

Ideas of painful actions cause a difficulty. Do not they suggest inaction rather than action? But should we not distinguish between the tendencies of the idea *qua* positive idea of something that may be

done, which will, I feel sure, have as such a motor tendency, and the tendencies of the matter contained in the idea, which, if known to be painful, will operate in conflict with the positive impulse to act, and tend to inhibit inaction, or suggest alternative courses? I fancy that we can trace this conflict at times; there is the morbid fascination of approaching a precipice or the instinct to cut down plants with a walking-stick, which one knows that one will regret having yielded to.

Next, then, if we have sufficiently made out, for the sake of argument, that voluntary action naturally means something different from the mere course taken by our ideas and feelings, how do ideas lead up to action? What have desire, and pleasure, and pain, to do with the process and with each other?

I have nothing new to say about desire. We agree, I suppose, that it is above all things a state of uneasiness, and it needs, I think, feelings both of pleasure and of pain in this uneasiness, and it is necessary that the pleasure should proceed from an idea, general or particular, of some object, not now existing *as* the idea represents it. I do not think that the element of pain need be antecedent to the idea and suggestive of it. I do not see why the idea which is felt as pleasant should not create the sense of want or pain by contrast, and I think this is often the case.

Is all voluntary action accompanied by desire? If we are speaking of voluntary action in the wide sense laid down at starting, I should say "No." Uneasiness is a pretty simple test, and there is much voluntary action on the borders of hypnotism and automatism—I mean the automatism of habit—in which we cannot verify uneasiness. I do not lay much stress upon this part of the argument, however, because it might be said that semi-automatic action—I mean such as walking or piano-playing—are done as a result of desire, though not through desire, but through co-ordination; and because if there is no desire in these cases, there is also very little volition. Extreme cases are valuable; but they must not be substituted for typical cases.

But there is a difficulty of the same kind at the other end of the scale. In some of the most important of conscious voluntary actions it is impossible to verify the uneasiness of desire. Professor Bain, I think, admits this, and ascribes it to the absence of delay in satisfaction. The point strikes me as a very difficult one. Of course, desire constantly is traceable, but the cases in which it is not traceable are too marked to be explained away. I incline to think that moral theory has made us too much afraid of peremptory necessity, forgetting that the whole human world, except middle-class philosophers, lives under such necessity, but yet is capable of morality. Especially

in matters of great importance, demanding long deliberation, the gradually increasing predominance of the idea of a certain course of action as the only one possible in the given situation for the individual in question, seems to me a far more noticeable feature of the active state of mind than anything resembling desire. A professional man, obliged to give up a profession which suited him by reasons of family duty, once said to the writer: "It was so clear that I had to do it that I really have not considered whether I liked it or not."

But then, if not through desire, how does a predominant idea cause bodily action, whether muscular or non-muscular? I should say, by setting up a particular feeling which if not crushed out follows by association upon the idea, and has the property of starting the particular motor or bodily changes required. Is the feeling then, as a psychical state, a link in a chain of physical causation? I attach no meaning to this question until I am conclusively shown an idea calling up a feeling wholly apart from any physical organism. I have no doubt that the idea is one side of a physical state, and the feeling is one side of a physical state, and that while idea calls up feeling, and feeling calls up the sense of action, so one physical state calls up another, and that calls up a third. Only I did not mean to separate the two series; I believe them to be a single series, such as naturally forms the action of a psycho-physical organism. This view has been stated in this room by Mr. Romanes with a reference to Professor James; it has been incisively urged by Mr. Bradley, and is the common-sense interpretation of the view of Hegel that mind and body are the same thing looked at from different points of view. I admit that it explains nothing, but I think that it repels difficulties which are created by unwarrantable assumptions.

About the systematic Will I need add nothing, as I have anticipated the discussion of it in speaking of Desire. I believe that I agree with Mr. Mann's description of the systematization of purpose and the formation of the Ego.

I think, then, that voluntary action is for psychology a case of the predominance of ideas, limited by restriction to ideas which produce outward bodily effect. But if you insist, as Carpenter does, on the volitional control of the course of ideas, then I think the limitation disappears, because there is nothing but the course of ideas that can determine the course of ideas.

The intentional difference, on my side, between my account and Mr. Mann's, is in my omission to refer to spontaneity and apperception. If these are names respectively for reflex action consequent on a general stimulus and directed only by what we call accident, and for the focussed operation of mental contents in reinforcing or discriminating other mental contents, then they are useful names, and

the latter may very well have a particular organ. But to speak frankly, I regard them with suspicion. They make me think of Carpenter's Indeterminist free will, operative through the vaso-motor nerves, through which it determines even our attention. What determines it I cannot make out. The next thing after establishing a faculty is to hypostasize it as a source of energy or of undetermined initiative. And this Mr. Mann seems to suggest, though I hope from the last sentence of his paper that the suggestion is not convincing to himself.

This brings me to Determinism, and I must apologise for having been already too long, and for now, therefore, being too short. I feel bound to explain that if, as I think Mr. Mann implies, the "self-determined will" involves the "objectively unpredictable" the idea so indicated is one to which Professor T. H. Green did not incline. He says that, a man being at any time what he is, any appearance of uncertainty as to whether he will act, or how he will act, is due to our ignorance of the man and of the circumstances. Works 2, 318, cf. *Proleg. to Ethics*, pp. 111-2. I am obliged to condense the sentence, but I give the reference. Mr. Bradley makes much more difficulty about admitting the objectively predictable. But even his objections do not fundamentally oppose the idea of coherence between action and character.

Time forbids me to argue the question of energy. I can only point out that in any case I do not think it touches the true *crux* of moral Determinism, and unless we deny that the strength of individuals is limited, and variously limited, I do not think it touches Determinism at all. The essence of moral Determinism lies in analysing the formation by the individual of the moral world in which he in particular lives; and I cannot see how any free supply of energy can help him if it contributes no new specific element to the content of his world.

Then do I accept Determinism? Not until it improves its statement. At present it frames its statement as if purposely to insult the voluntary agent. It says to him, "You are determined by a motive." The sting of this insult is in the implication "that the motive is not you, and therefore you have no hand in the action which you think your own." At such a suggestion I should certainly fire up and retort, "The ideas which habitually determine me are the predominate elements of the contents of my mind; they have taken their precise concrete individual shape in my mind, and cannot possibly exist in the same shape in any other mind than mine. When I am controlled by these ideas I am controlled by my systematic and habitual self, and I only wish its control was much more absolute than I find it to be."

Indeterminism is much more insulting even than Determinism, because Determinism in the present day does allow one a character which at least combines with the motive, but Indeterminism takes away one's character altogether. I do not think that in spirit I differ from Mr. Mann on these points.

In Mr. Daphne's paper four points of chief interest strike me which I must mention in the briefest way.

1. Action, in the strict sense, is the action of an agent, and so voluntary; in nature, there is no agent, and therefore no action. I understand Mr. Daphne's opening pages to say this, and the view is I think quite tenable; I only regret somewhat the absence of distinction between the various grades of re-action short of consciousness, *i.e.*, between growth and collision, and I do not much like the *entire* disparateness thus introduced between our sense of activity, and the sequences of the external world. It seems to me to interfere with any analysis of our sense of activity. Still, for Ethics, at least, the view is a just one.

2. I am glad that the case of Voluntary Inaction has been noticed, but I think this takes us at once beyond action accompanied by physical change, to which I thought Mr. Daphne rather wished to limit himself.

3. The series of processes requisite for action seems to me too complex, probably because the psychical elements are taken as too simple. Of course your consciousness has been formed by experience, but I do not believe that you need definitely go back to previous particular experiences. An element in the present idea operates directly by reproduction. I think the reference to previous experience might be omitted in (1); (3) might be omitted altogether, and even (4) should, I think, be modified to make it quite clear that you need only determine the immediate object of movement, and not the previous initial muscular movement, which we hardly even know. As Mr. Romanes said, the idea or feeling presses the spring, and the rest follows from co-ordination.

4. I must notice without laying stress on it that "attention to, comparison of, and choice among *previous* states of consciousness" are expressions which raise a certain difficulty, which is, I think, more than one of language.

THE PART PLAYED BY AESTHETIC IN THE DEVELOPMENT OF MODERN PHILOSOPHY.

By BERNARD BOSANQUET.

If I assert that a decisive impulse was, as a matter of fact, imparted to the course of modern philosophy by aesthetic reflection at a critical moment, I do not intend to deny that thought was already inclining in the direction in which this new influence peremptorily urged it. I am content to explain, if I can, how, historically speaking, a definite philosophical effect was produced in Germany by reflection upon the nature of fine art, about a century ago; and to point out the characteristics which enabled aesthetic science to exercise such an influence at that epoch, and which invest it with the capacity to produce a somewhat analogous result whenever it obtains a prominent place in culture.

Of course in a discussion which is partly historical we must always begin at the wrong place, because the right place to begin at would be the beginning, and that is out of reach. Thus, in the present case, it would be no more than right to trace far back into the ancient world the factors which embodied themselves in the Kantian philosophy, but even if my knowledge permitted such an analysis, time would forbid it. I must accept the Kantian system as a historical datum, and point out that for the present purpose it must be taken as formulating with extraordinary penetration and audacity, the chief paradoxes or contradictions known to philosophy. Kant seems to have been a centre or point of transition to which the ideas of the age converged, and from which they diverged again. And the part which I attribute to aesthetic reflection is that of having intervened at the moment of divergence, and having then impressed upon the main branch of the post-Kantian philosophy the character which it still retains, and which, being deeply engrained in the development of our time, is gradually revealing itself in all nineteenth century ideas. This character is commonly indicated by such phrases as "reconciliation of opposites," "concreteness," "organic synthesis," "identification of the real and ideal," "the idea of humanity," "the spirit of modern civilisation." I repeat that the tendency thus designated is predominant throughout modern life and intelligence in all its departments, and that aesthetic or the philosophy of fine art is merely a striking case of this tendency, which case, because it is so striking, is apt to be the first that attracts philosophical attention.

I will now attempt first (1) very briefly to indicate the problem

of modern thought as presented by Kant, then (2) to sketch, as a study in the history of philosophy, the function of aesthetic in the partial solution of this problem, and finally (3) to compare this solution with the latter course of thought in our own country, including in the comparison some factors of English culture which lie outside professional philosophy.

(1) If I possessed the knowledge which I have admitted to be wanting, then it would be my duty at the very least to trace back to the Renaissance and beyond it the varying attitudes of European culture towards the sensuous and the supra-sensuous worlds. I suppose that such an enquiry would reveal a perpetual alternation and confusion between the influences of the actual and the ideal, but also a growing apprehension of their unity, always most marked in the greatest epochs and among the greatest men. Even Dante, for example, who might be thought of as completely absorbed in the contemplation of a world beyond the present, seems rather to expand the actual into the ideal than to sever the actual from the ideal. If he is specially bent upon discriminating precisely between things temporal and things spiritual, we must remember that right distinction is the first foundation of unity, and that synthesis has no worse enemy than confusion. If Dante condemned the temporal encroachments of the spiritual power, this was because he considered that the spiritual power as organised for religious purposes could not but cease to be spiritual by assuming functions for which it was not adapted; but there can be no doubt, I should imagine, that the true temporal power in doing the work of Government which properly fell to its share appeared to him, by this discharge of duty, to fill a place in the spiritual world.

I suppose, further, that in and after the time of Dante, religious idealism was attacked or rather undermined by a sensuous semi-pagan realism, and that the profound intellectual idealism which followed upon the Reformation was in its turn finally challenged by eighteenth-century scepticism in France and Great Britain. Yet we cannot rightly estimate these historical abstractions unless we bear in mind that from other points of view their places might well be reversed; that the faith in the unseen world of Dante or Giotto was rooted in a far firmer grasp of present reality than belonged to the easy humanism of the later career of Raphael, and that the mathematical researches of Descartes or Leibnitz indicated a far more profound interest in the phenomena of nature than did the abstract idealism of Berkeley or of Hume.

Thus the reality of sense and the ideal of thought were struggling together and displacing one another, not merely in the whole movement in the modern world, but as is always the case with intellectual

matters, in every particular wave of that movement. It is not surprising, therefore, that Kant felt this contradiction and applied himself with wonderful courage and persistency to drag it into the light of day. Hegel has said,* and, I think, not unjustly, that before Kant's time the receptacle of all contradictions was God, but that Kant located them in the human self-consciousness. Thus Kant speaks† of the two worlds, the sensuous world of nature, and the supra-sensuous world of freedom, between which there is a gulf that you cannot even see across. Now, if we ask the question suggested by our present subject, namely, which, if either of these two worlds, according to Kant's account, can be said to have actual and real existence, it is not easy to give an answer.

The supra-sensuous world would, I take it, be the more real of the two, if you could know anything in particular about it, which you cannot; the sensuous world would be the more knowable of the two, if it could be said to be objective, which it is not. I assume that what is nothing in particular for us is not real for us, and that what is not objective is not an object of knowledge.

All that can be said then, to be real for us and accessible to us, according to the conception which we are discussing, appears to be a nature or a life which make themselves for us, or which we make, by a constant finding or bringing together of these two worlds, each of which in itself is a mere unreality, the operative elements in this fusion being rational perception and rational will. I give a single startling example. We are to act the moral law as if it were the will of an invisible Ruler of the world, but we must not say that there is such a Ruler, because that we cannot prove. He is a sort of illustration, not drawn from fact, of how we ought to behave. The reality is only in the actual moral life. As Hegel says, the God thus postulated is like a scarecrow that children set up, and agree together that they mean to be frightened at it.

Of course this sketch is only a selection of the features that bear upon the development which I am discussing, but I do not think it is substantially false.

If it may pass, then we have here three very remarkable things. We have, first, a single reality consisting in the union or concrete cohesion of two worlds, which had previously been envisaged, as indeed they were by Kant himself, as two separate systems of existences, although he saw that, as separate, each must be practically unreal. We have, secondly, this concrete reality in the shape of that which exists for rational perception and rational will, the concreteness

* *History of Philos.*, vol. iii., 526.

† *Krit d. Urtheeskraft*, p. 14.

depending on the rationality. And we find, thirdly, that this concrete rational reality, although theoretically subjective, that is to say, relative to the human individual, is on the other hand also practically objective, that is universally valid because relative to something which is the universal nature of the individual. Thus we have the real as concrete, the real as rational, and the real as subjective objectivity.

But Kant does not seem, so far as I am aware, to be at all deeply impressed by this aspect of the matter, or by the unreality of his separate worlds as separate. He writes down the paradoxes which he takes to gather up the elements of truth, with a peculiar *sang-froid*, and it is largely for this reason that his views have had such enormous influence. For they are not at all completely built up into a symmetrical theory, and perhaps for that reason do not arouse the suspicion that their parts have been tampered with. They are a sort of *media axiomata*, carried through all aspects of experience, largely in the form of flat self-contradictions which it is exceedingly difficult to deny.

He will tell you, for example, that that is beautiful which is universally and necessarily pleasant, without the intervention of an idea. But necessity usually involves an explicit or ideal relation of antecedent to consequent. Or again, he will say, that is beautiful which has the form of adaptation to an end, in so far as this is perceived without the idea of an end. This sounds, in ordinary language, like a contradiction in terms. Yet, in fact, the more these statements are tested, the harder it is to deny them, and the suggestion presses itself upon the reader, that, as has been said probably a great many times, Kant has really hit upon a new departure by basing his philosophy upon an objective subjectivity, or concrete of rational perception, and that the chasm between the two worlds, which his philosophy inherited, and which, at first sight it appears to perpetuate, is thus in principle overcome.

But in principle only. For Kant was very shy about venturing beyond formal abstractions, and he shuns giving a positive development or content to the unity which his principles suggest. He was a pioneer in all directions, but a builder in none. Even in aesthetic, where his new departure is exceedingly marked, he is so afraid of admitting a concrete emotion, that he is inclined to reject the interest in beauty along with the interest in sensuous satisfaction, and to shrink back from the idea of a significant content in art to that of its correspondence with a psychological balance between our faculties.

Thus Kant left much open to his successors. Would they have the force to maintain the grasp by which he had for a moment united two unreal worlds into one reality, and would this real meeting-point

develop, in their hands, into an organised whole, capable of including the movement of human experience? Everything depended on the possibility of showing some justification for the pretension to find the ideal world in the movements and principles of that which we touch, and about which we will, by demonstrating that such an identification could be made good in science and history, and driven home throughout the daily facts and requirements of human life.

(2.) I think it probable that the essential answer to the question was practically determined within ten years after the publication, in 1790, of Kant's epoch-making treatise on *Æsthetic*, *The Critique of the Power of Judgment*. But a much longer interval elapsed before the new philosophy was elaborated in books and lectures and acquired extended influence.

An essential step in its determination was no doubt the philosophy of Fichte. I merely accept the judgment of history, in saying that the ideas of this great man were not, in themselves, an adequate theory of concrete existing reality. And further, not professing to make an original criticism, I suppose I may take it as admitted, that the nature of their inadequacy consisted in laying stress on the form of thought at the expense of its content. For any such view is lacking in solidity, and is incapable of assimilating the movement of experience. It is most instructive that the work which committed Fichte to the central importance of thought in its abstract activity, should have appeared the year before Schiller's *Æsthetic Letters*.

Great minds, however, not only discover truths, but by their inexorable logic force others into the track of truths outside the course they have themselves adopted. And it would be curious to consider how far Schelling and Hegel owe their more concrete ideas to the very slight priority in time,* which caused Fichte's doctrine to be laid before them while they were still uncommitted by any important writings.

But although Kant's *Kritik d. Urtheilkraft* was the foundation, and Fichte's *Grundlage* the negative suggestion of their views, there was, as I have just hinted, a more positive influence at work besides.

Down to the publication of Kant's *Critique of the Power of Judgment*, the living movement of æsthetic speculation in Germany had not been concentrated into a branch of technical philosophy. Baumgarten had indeed in 1750 made a new departure of immense importance, by applying, for the first time, the name "Æsthetica" to a treatise upon beauty in thought and feeling; and Kant himself had, at an early date in his life, set down observations upon the nature of beauty.

* Fichte was 13 years older than Schelling, and 8 years older than Hegel.

But it was not from sources like these, not from Leibnitzian rationalism, or even from the abstractions of the critical philosophy, that the later German idealism acquired its unique depth of insight and sympathy for the idea within the reality. Allowing, as I must always be understood to allow, that every mind in some way reflects the influences of its time, we may nevertheless say, so far as such a thing can ever be said at all, that the peculiar assimilative vitality of the new Renaissance in Germany is primarily owing to the initiative of a single man. Take away the life work of Winckelmann from its place in the lives of Schiller and Goethe, and it is impossible to form an idea what those lives could have been. We need not trace his individual influence beyond this point. It was through these two men of genius that Winckelmann chiefly acted on philosophy, and apart from this specific result, to have modified the thoughts of Goethe is almost as important an achievement as it would have been to have modified the acts of Napoleon. Winckelmann, in spite of all his defects as a theorist, endowed the human mind with a new organ in the sphere of fine art. This judgment is Hegel's, evidently based upon Goethe's opinion, and has been repeated with emphasis in our own day by Mr. Walter Pater. And it was this new organ or capacity, awakened in the first instance by enthusiasm for the ideal realism of Hellas, which, when brought to bear in the province of technical philosophy, had the effect of focussing attention on living realities, and of suggesting for the first time a really profound conception of history, as the evolution of man's spirit in civilization.

It has been said by a critic whose attitude is eminently judicial, that the philosophy of history and the history of philosophy may almost be said to have been discovered by Hegel, and that he has thrown greater light upon Greek thought than all other thinkers put together.* But if Winckelmann had not first discovered the history of fine art, if Schiller had not insisted on the real synthesis embodied in beauty, and if Goethe had not pointed out the evolutionist principle of Winckelmann's historical conception, I do not see how Schelling and Hegel could have arrived at their concrete treatment of the self-realising idea.

In order to take the separate æsthetic movement down to the time at which it affected philosophy, I will mention two or three significant dates:—

Baumgarten's *Aesthetica*, which gave the enquiry its name, but showed no special insight into concrete beauty, 1750.

* Jowett in the *Introduction to Philebus*.

Winckelmann's first work *On the Imitation of Greek Art*, 1755; his second work, the *History of Ancient Art*, 1764.

Lessing's *Laocoon*, 1766; and, a really more sympathetic and appreciative work, his *How the Ancients Depicted Death*, 1769; and his *Education of the Human Race*, which shows the evolutionist idea, 1780.

Goethe's *Iphigenie*, the finest quasi-classical play in existence, 1787.

Kant's *Kr. of the Power of Judgment*, 1790.

Fichte's *Foundation of all Science*, 1794.

Schiller's *Letters on Ästhetic Education*, 1795.

Goethe's *Study of Winckelmann*, 1805.

Now down to the year 1795, Hegel, born in 1770, had published nothing. Schelling had only written one or two short works completely on Fichte's lines. In this year (1795) the two friends were corresponding, partly about Fichte's mode of thought, the startling results of which Hegel was welcoming with great enthusiasm, conceiving them as in close connection with the ideas of Kant's *Kritik of Practical Reasons*. At this moment Schiller's "Æsthetic Letters" were published in the *Horen* for 1795, and are referred to by Hegel, writing to Schelling, as being a masterpiece.

Bearing in mind this influence of Kant, Fichte, and Schiller, in the order here given, on the early philosophical development of Schelling and Hegel, before the divergence, that is to say, before the definite formation of their characteristic modes of thought, let us now turn to Hegel's lectures on Ästhetic, which belong to his mature period from 1818 onwards.

In the introductory portion of this course, Hegel takes occasion to trace the genesis of the post-Kantian philosophical movement, which is in his view intimately connected with the advance in æsthetic science, and he speaks in one place of the general reawakening of philosophy as having been the condition of a new kind and degree of insight into the significance of fine art, and in another place of the deeper conception of the beautiful as having paved the way for the great transition in which strictly modern thought had taken its rise. This double account of the matter is not hard to understand. The deeper appreciation of the import of fine art preceded the philosophic revival, but the intellectual formulation of æsthetic philosophy could only accompany or succeed it.

In this sketch Hegel starts from Kant, more particularly from the *Critique of the Power of Judgment*. He then points out that Schiller, especially in the letters on Ästhetic Education, was before-

hand with philosophy proper in indicating the true direction in which a reconciliation of the Kantian antitheses should be sought, and after speaking of Schiller, he passes on to Schelling as the thinker with whom modern or complete philosophy originates, and with whom also the science of fine art for the first time attains its true intellectual position. He takes occasion, however, to observe that the true nature and dignity of art in relation to the highest human interest had begun to be appreciated, though not philosophically formulated, some time before. The subsequent sentences make it plain that he is referring to Winckelmann's life and influence. Winckelmann, he continues, created a new art perception, aroused his age to the task of searching for the idea of fine art in its historical growth, endowed the mind in this province with a new organ, and suggested a treatment of the subject which was a wholly new departure. Here, I think, Hegel clearly has in his mind the judgment of Goethe in the sketch of Winckelmann published in 1805.

From this point Hegel goes on to discuss the Schlegels, Tieck, and others, with reference to the critical doctrine of irony, and in doing so treats their opinions as being, like Schelling's, determined by Fichte's system, but unlike Schelling's, devoid of any further and objective principle of synthesis.

Now, comparing this sketch with the letters of 1795, we can hardly doubt that Schiller's work on *Aesthetic Education* was the first immediate point of contact between technical philosophy and the deeper estimate of fine art which Winckelmann had created. For Lessing, with all his critical skill, had hardly entered into Winckelmann's historical spirit.* It was Schiller, then, who first not merely suggested, but impressed upon the age with all his force, the idea that in beauty, and in the mind which is perceptive of beauty, there is an actual and existing reconciliation of such opposites as sense and thought, natural necessity and moral freedom, matter and form.

The concrete ideal reality on which both Schelling and Hegel base their philosophical conceptions appears to be an enlarged transcription of the import thus attributed to beauty, coming, as it did, in face of the problems which Kant embodied in his antitheses, and which Fichte, apparently for want of some such suggestion, had failed to meet. The place occupied by fine art in the systems of the two great objective idealists, is a very remarkable fact, which coincides with this explanation of its essential significance to them. We may notice in passing that the distinctive peculiarity of Hegelianism originated—if this analysis is in any degree correct—in that very

* Hegel: *Aesthetics*, vol. ii., 439.

recognition of the reality and value of individual feeling and action for which, as we are sometimes told, it fails to find a place. And for this reason, what Von Hartmann rightly calls "concrete idealism" in *Æsthetic* begins with Hegel, and, as Von Hartmann remarks, is founded upon Schiller. Schelling, though not a mere formalist, inclined more and more throughout his life to abstract idealism, that is to say, to treat actual beauty as a secondary incorporation of an ideal or supra-sensuous beauty, which to a concrete idealist is a contradiction in terms. And thus he more and more lost his hold of the principle by which he himself had been the founder of modern philosophy; for nothing less than this is the position which his great rival assigns him. In the places to which I have already alluded, Hegel gives a short analysis of the main positions of Schiller's aesthetic letters, and then goes on to say that the unity of sense and thought, and of other opposites, which Schiller scientifically apprehended and laboured to embody in actual life, was recognised by Schelling as the idea or principle of knowledge and existence, and that by this recognition, philosophy, in Schelling, attained its "absolute stand-point." Hegel, no doubt, has also his own contemporary development in his mind, though he does not think right to allude to it.

Now I propose to say something of the fundamental nature of the absolute stand-point, showing how its character corresponds to its genesis, and then to explain how the needs which it dealt with in Germany have been provided for in the culture of our own country.

For the phrase, "absolute stand-point," we may not incorrectly substitute the apparently more simple phrase, "modern stand-point." I do not say that the word "modern" has a technical signification in philosophy; but the spirit or conviction embodied in the word "modern" does correspond to the idea conveyed by the word "absolute." When, for example, we speak of modern science, modern enterprise, modern civilisation, what is the fundamental feeling which the expression is intended to convey? I believe that we may safely answer, "a sense of rational freedom," that is to say, the conviction that man can meet with nothing that is outside himself, in the sense of being necessarily and fundamentally superior to his rational nature and incapable of being faced or dealt with by it. We know that the individual may be cowed by superstition, degraded by vice, or destroyed by physical agencies, but we do not believe that man, as such, is beset with any necessary inferiority in face of any power or of any phenomena in the universe. It is the "Si fractus illabatur orbis," or Campbell's "Last Man," re-asserted in terms of a reality greater than the individual. It would take me away from my subject to argue this point, but I do not think that the fact of this conviction

being characteristic of the progressive civilisation of Christendom can well be denied.

It is this conviction which took philosophical form at the time of the French Revolution in the doctrine of the absolute or the objective idea. Admitting, as every sane man must admit, that the difference between contact *with* the whole, and comprehension *of* the whole, must always subtract something from the absoluteness of any human attainment, I still maintain that this doctrine does embody the great and vital conviction of modern life, and of modern life alone. However narrowly limited the individual may be, however far beyond his reach the whole of reality may extend, still we are now convinced that, as this doctrine tells us, contact with the only reality is ours here and now. The world, which is accessible through morality and science and art, is not dwarfed by anything else of a more real kind that remains beyond it and incapable of assimilation, although, of course, we cannot precisely say to what extent, within its continuous totality, the accessible world may be capable of modification. We can only say that we are not going to believe in the discontinuous or in the irrational.

This, then, Reality, as accepted by the modern spirit, is the meaning of the absolute. It bears this name because it does not permit of being referred to or put in relation with anything other than itself, that is to say, of being treated as dependent on anything other than itself. Within itself, of course, its parts, among which we are, depend upon and are relative to one another. Thus it is worth noticing, as against a common misapprehension, that no underlying reality, no purely super-sensuous will or idea, could be reasonably called Absolute, because, as our perceived world would be in external relations with it, both terms would by the fact of this relation become merely relative and dependent. No abstraction can be absolute.

The connection between the meanings of Absolute and Modern is therefore quite plain. Both of them fundamentally signify "freedom from the beyond," or "the concrete unity of life." And so when Hegel speaks of philosophy attaining its absolute stand-point in Schelling's time he may be not unfairly paraphrased by saying that the chief underlying conviction of the modern civilised world, which was no doubt immanent in Christianity, was then for the first time explicitly formulated in philosophy.

If we now look at the shape which this mode of genesis has impressed upon objective idealism as formulated by Schelling in his first systematic treatise published in 1800, and by Hegel in the *Phenomenology of the Mind*, published 1807 (the dates are worth observing in connection with what has been said), we shall at once be

struck by a peculiarity obviously connected with the conditions of which we have been speaking. I wish mainly to draw attention to this peculiar feature, which forms the weakness and the strength of all Idealism which has its roots in Hellas, though I do not pledge myself to withhold my judgment of its value.

1. If we ask, approaching the question from that side which admits of least mistake or controversy, what is the *denotation* of the reality thus pointed to as concrete mind, or as the union of freedom and necessity, of subject and object, of thought and sense, the first answer that occurs to us on the basis of this philosophy is undoubtedly furnished by referring to what an Englishman would call the artificial as opposed to the natural world. Objective mind with Hegel, taken in the technical sense, does not mean Nature, as might be thought by those who are careless about terminology, but indicates actually existent although consciously constructed human organisations and institutions, such as the family, law, the concrete moral will, Society, and the State. Absolute mind, again, does not mean the same thing as "the Absolute" or "the Idea," but is the term which designates human activities, which, being objectively real in persons and things, involve also a thorough consciousness of their own ideal nature. That is to say, the denotation of absolute mind consists of Fine Art, as a connected whole consisting of minds by which certain actual things are regarded in a certain way, and of Religion as a particular kind of consciousness in actual individuals forming actual communities, and of the philosophic intelligence as a common recognition existing in human minds of a common nature and development.

Now it is plain that the objective and absolute mind thus described pre-suppose and rest upon the actual properties and laws of natural bodies; and, therefore, if philosophy fails to include the reality of nature, its basis is completely swept away. But, subject to this reservation, it appears to me to be an invaluable gain to culture that the objective reality of the artificial world should be forced upon our attention. It may be said that this attitude is a repetition of the error committed by Socrates in disregarding the study of natural science. And, undoubtedly, there is an essential relation between these two points of view. I shall endeavour to show, however, in the right place, that ultimately this mode of consideration, in its modern development, is that which does fullest justice even to the importance of nature and of natural research. And it must be remembered, as one of the facts to which history, aided by modern science, has not long opened its eyes, that where the natural real world passes into the artificial real world, there is a territory of enormous extent and importance which is the reflex, in what we call nature, of our progressive civilisation. The history of man is at the same time the

history of the habitable surface of our globe, and of all that lives and grows upon it. No animal, no plant, no square inch of soil, except in a few mountains and deserts, has been left unaffected by the practical idealisation which human purpose introduces. And if we take further into consideration that whole second nature which exists in the shape of machinery and buildings, and all the instruments of life, we shall see that the artificial real world, although founded throughout on the laws and properties of the natural real world, is yet a phenomenon of existence which, as the body of the objective mind, may well claim the peculiar attention of philosophy. Infinitely less than nature in quantitative extent, it is no less objectively actual, and is perhaps even more significant. I may add that a consciousness of the historical importance of the transformation of the earth's surface was one of the few points in which the Hellenic mind possessed a historical sense almost more penetrating than our own. The Æschylean contrast between the tamed and the untamed earth recurs constantly in Hellenic ideas.

It was when attention was thus called, for the first time I believe in the modern world, to the ideal objectivity of human works, relations, and institutions, that the actuality of civilization was thoroughly brought home to consciousness with the double result of creating the historical sense, and of investing with imperative urgency the claims of human society as something not less real than the perceptible individual.

2. But, secondly, the whole basis of life is laid in Nature, although the environment of our terrestrial existence is mainly a second nature which has been practically idealised by mind. Philosophy must therefore include nature in its scheme on pain of omitting the essential necessity in which all life is rooted, and some of the greatest ideas which can be presented to the intellect. Now it appears to me to be characteristic of objective Idealism, for good or evil, that it approaches the natural real world from the side of the artificial real world, and extends to the former that kind of consideration which has been suggested by the latter. This course, as a procedure from the better known to the less known, has much to recommend it in logic, and it is strikingly analogous to Darwin's luminous treatment of the natural variations of species by comparing them with the variations of species under domestication. And Mr. Case's brilliant work on *Physical Realism* furnishes a somewhat less closely analogous example of a similar argument. Fine Art, or machinery, are Nature made easy; Nature is, for this treatment, a harder example of the ideal objectivity which is actual in the works of man. Nature is therefore set down as a phase of the Idea, but as a phase neither containing nor pre-supposing consciousness, and one therefore

in which the Idea is hard to disentangle. In every sense, therefore, Nature is below mind;* the essential † process of nature is the struggle towards the manifestation of life and of intelligence. This language points directly to Darwinism, but truth requires me to admit that Hegel at least did not believe in the evolution of species as a historical fact, though I am quite unable to see why he should have denied it. If nature is called on, by Schelling and others, petrified or frozen intelligence, we must not forget, so Hegel insists, that the stones cry out and exhibit a movement towards life and mind.

I will only comment upon this mode of approaching the natural real world, as a historical phenomenon, and not from a metaphysical point of view.

The form of the conception was deeply conditioned by the circumstances of the age. Men's minds, in the time of Napoleon and of Goethe, were busy with such realities as man and his works; with history, law, politics, art and civilization. The influence of æsthetic on the conception of nature—which in Goethe's hands helped to found the science of morphology—is a natural focus of the culture of that age.

Again, this view of Nature is modern or absolute. Nature is necessary, is the unconscious idea, is potentially mind. Therefore, it is the legitimate prey of physical science and of fine art. The understanding is to have its rights; understanding without reason is something; reason without understanding is nothing. Nature is indeed chance, as indifferent to particular human purpose; but has no inner and outer,‡ no essence, no latent remainder; and therefore there is no miracle and no supernatural. This is the bearing of the modern or absolute stand-point when Nature is in question, and as I shall try to show by reference to later English culture, was a prophecy 100 years ago which has since been magnificently fulfilled.

Lastly, these conceptions do, as has already been observed, definitely rank nature below mind. A straw, it has been said, suffices to prove the existence of God; but Hegel retorts that the weakest word or thought of subjective mind shows more of God than any single natural object.

Great heart-searchings, and as it appears to me entirely idle ones, have been caused by this last feature on its æsthetic side, according to which *Æsthetic*, as the science of beauty, is identified with the philosophy of Fine Art, the beauty of Nature thus appearing to be

* Hegel: Introduction to *Æsthetic*.

† Hegel: *Naturphil.* p. 24.

‡ Goethe's lines: *Ins Innere der Natur*, &c.

omitted in theory, and being also to some extent neglected in the detailed criticism of the subject.

This matter seems to me almost too simple to need discussion. Beauty, however objective, is necessarily and unquestionably subjective. That is to say, it exists for a particular mood and perceptive capacity, and except as relative to these cannot be judged or apprehended at all. That, in discussing the beauty of nature we pre-suppose a normal civilized appreciative capacity is as much a matter of course as that in discussing effects of colour we pre-suppose a normal eye. Therefore, the ordinary person's perception of natural beauty is essentially the same thing as the perception which the artist embodies in a work of art, the only difference being in degree of appreciativeness, and in presence or absence of plastic skill. And therefore, once more, the spectator's perception of beauty in nature, is a perception of precisely the same kind as his perception of beauty in a work of fine art; the only difference being that the work of fine art lends him the guidance and assistance of the artist's mind and perceptive mood, "lending our minds out," as Browning says, and is therefore more easily appreciated than the unmodified nature in which the artist's work has to be done by the spectator himself. The appreciation of natural beauty by the public mind is in fact conditioned by and historically sequent upon the revelations made by great painters and poets; though no doubt the tendencies of these men are themselves controlled by deep-seated influences in the state of culture and society. In short, natural beauty is that beauty in respect of which every man is his own artist; and the consideration of natural beauty is usually and most conveniently conducted with reference to its representation by fine art, in which case the distinction is no longer between the beauty of nature and the beauty of fine art; but between the beauty of *nature* (that is, not human beauty) *in art*, and the beauty of *man or history in art*. This is the attitude which all consideration of nature practically takes, for instance, in Ruskin's works. In speaking of natural scenes which cannot be fixed on canvas, for instance of the actual sunset colours, we treat them by description and memory precisely as *if they were pictures*. If nature is really to be opposed, not to man, but to fine art, it is plain that the whole world of reality would have to be considered in respect of its beauty twice over, once as natural, and once as represented in fine art. The distinction is utterly untenable, and is never maintained for a page of good criticism.

There was no doubt at the end of last century very little conception of pure natural beauty in the former sense, because nature, as opposed to man and history, had not successfully or completely been made the object of art or of art criticism. If Hegel had had the

"Modern Painters" before him he would no longer have been able to say that the realm of nature had never been systematically criticised with reference to the attribute of beauty, as it is in the *materia medica* with reference to utility.

Thus the inclusion of natural beauty within the beauty of fine art presents no philosophical difficulty whatever.

The subsequent history of objective idealism in Germany, with its off-shoots and the reactions which it has provoked would almost be the history of German if not of continental culture during the present century. The concrete grasp of life, which gave it its force, has been widened and deepened by critical and sympathetic research into the whole actual evolution of the human spirit, from theology to economics, from Strauss and Baur to Lassalle and Karl Marx; and the seven-league strides of physical science, whatever may be its explicit attitude to philosophy, are performing, as Schelling distinctly foresaw, the definite demonstration of the idea in nature.

The centenary, next year, of the *Critique of the Power of Judgment*, will see the formal and abstract paradoxes in which Kant first expressed the fusion of reason and of sense, developed into the self-consciousness of an immense many-sided movement in which the modern spirit recognises actual reality. And of this distinctively modern consciousness one obviously traceable source or root—it would be rash in so complicated a matter to say more than this—was the profound conception of the significance and history of fine art initiated by Winckelmann, and developed by Schiller, Goethe, and the philosophers who inherited their ideas.

(3.) If we now turn, as our subject demands, to the consideration of British culture and reflexion, through which modern philosophy more especially appeals to us, it cannot be denied that we find ourselves in a different atmosphere. If we recall the names of the writers of greatest repute in British philosophy during the present century down to the publication, say, of Jevon's *Principles of Science* in 1879, we find that with one great exception, in Herbert Spencer, they are chiefly writers on abstract moral philosophy, or on psychology, or on logic; or indeed, and here no doubt they touch the concrete, on the theory of legislation as Bentham, and on political and economical subjects as Mill. The history of philosophy, of religion, of fine art, of civilisation, is conspicuous by its absence, even allowing Mr. Lewes' and Mr. Buckle's works to be solitary exceptions. All reflective thought must, I think, have its definite stimulus or nutriment or material, and it is plain that the nutriment of English philosophy has not been the same as that of continental

thought. It has touched the concrete works of man chiefly in the theory of legislation, in political philosophy, and in the procedure of physical science, which latter came to the rescue of British logic just in time to save it from death by inanition. The conception of evolution has come to it not from history but from physical science, and is through Mr. Herbert Spencer and others like him, making its influence felt in all regions of enquiry. The entrance of English philosophy into a concrete and constructive direction during the last 30 years, not counting the Germanised movement, is quite unmistakeable. But on the whole, by a contrast that will surprise no student, the reflective thought of our most practical and concretely active of races, is singularly abstract, introspective, and unorganised, and, till lately, wanting in constructive purpose.

Now I hold it to be both unseemly and unjust to assume a tone of mere disparagement towards the eminent philosophers of our country through three generations. Philosophy, I take it, is an expression of national life, and our business is to understand and appreciate, not to depreciate. One of Shakespeare's grandest sayings should never be forgotten by the historian of thought: "love speaks with better knowledge, and knowledge with dearer love."

I would venture from a historical point of view merely to suggest the consideration, which is to my mind anything but disparaging, that nineteenth-century philosophy in Great Britain has borne perhaps to some extent the character of an opposition to all that vainly pretended to be the national culture and institutions.

In England, at least as distinct from Scotland, where better social conditions prevailed, we observe a marked divorce—I speak of the time before 1860—between philosophy and the older universities, and we perceive in the arguments of the Associationist Psychology and in the new logic based upon scientific inference, a feeling that there is a predominant superstitious tradition, adverse to free explanation and bound up with a kind of orthodoxy, which ought to be overthrown. No one can read the very clear and powerful writings of Mr. G. H. Lewes without being struck by this attitude. The life of this rebellion was supplied by the unconquerable spirit of natural science, hostile to the dominant embodiment of so-called religion, and closely allied, for reasons obvious under the circumstances, with a spirit of political reform. And there was, in the culture which ought to have satisfied these new demands, no surviving intelligence adequate to cope with them or to transform them. Sir W. Hamilton's philosophy fell before Mill's attack, not so much because what Hamilton said was false, as because, supposing it ever so true, there was nothing in it. Thus it is not surprising, nor blameworthy, that there should be something schismatic or one-sided about the new

philosophy, which has at all events the credit of having carried the nation with it, by high courage and energy, by what seemed a direct appeal to facts, and, in many cases, by splendid literary gifts. A nation must think in its own language, and must reach the truth by its own road, and if the Mills and John Grote, and Lewes, and Clifford had never written—I do not speak of living writers—then those who now wish to build further upon the present state of philosophy would have no public to address, and no philosophy to discuss.

What I have said makes it clear, however, that in British technical philosophy of the present century there is no æsthetic, and no part played by æsthetic. In Mr. Lewes' history of German thought from Kant to Hegel inclusive, you will hardly find six lines dealing with the epoch-making treatment of this subject by the writers of that day. Darwin here, as everywhere, made suggestions of great interest, and the problem has now begun to affect abstract enquiry, but the enormous solid output of German research in this direction during the last 100 years, which, with all its faults and awkwardness, is a gigantic contribution to the history of the world, finds no parallel whatever in English reflection.

In passing to culture outside professional philosophy, I may mention two great works in the province of pure history which are really, I think, not exceptions to what I have said, but confirmatory negative instances. Could Germany show, it may be asked, any historical labours that for grasp and interest and insight, could compare with Gibbon's *Decline and Fall*, and with Grote's *History of Greece*? Perhaps not. But both of these splendid works distinctly bear that mark of antagonism to which I have referred, of antagonism in religion, or of antagonism in politics. In both, therefore, there is something contentious, and because contentious, something unappreciative, which has debarred them from their full legitimate effect on the speculative consciousness, in spite of their position as monumental works of historical research.

If we now look at other sides of the higher culture of the people of these islands, we are struck by the existence during the present century of a succession of great writers who, without being professional or systematic philosophers, have occupied a sort of prophetic position in Great Britain, and have been, man for man, at least equally influential with the great logicians, psychologists, and ethical writers. I ought not to include among such leaders men who have simply worked as great poets, because we are speaking only of reflective culture; but it is the case that two or three of our poets have had a distinct intention or effect beyond the usual influence which belongs to an artist as such, and these have a right to be con-

sidered. I will now briefly explain the philosophical import which I ascribe to the work of some among these great men, and its probable bearing in the future upon technical philosophy.

It would seem, perhaps, absurd to fix upon the most unreflective of writers, Sir Walter Scott, as the chief initiator of a philosophical influence ; but I believe there is little doubt that historical humanism in England, as on the continent, received an epoch-making impulse from his writings. Wordsworth, too, and Shelley, must be mentioned, the former if only for his incalculably important influence on Mr. Ruskin, and on the public to which Mr. Ruskin addressed himself ; and the latter for his profound and literally accurate judgment on our debt to the ancient Greeks, which sounded a note quite new to England in historical criticism. Then came Carlyle as a philosophic historian and student of great literature ; and then Mr. Ruskin, whose influence appears to me to mark a revolution in general culture as great as, and in many ways corresponding to, that produced by Darwin in scientific conceptions. With him, allowing as always for the surroundings of the times, and especially for the kindred influence of physical science itself, there awakes on the one side the appreciation of the idea in nature, and on the other side the profounder appreciation of the idea in history.

In speaking of the idea in nature, I assume, what I believe I may safely assume, that the main contentions of Mr. Ruskin's *Modern Painters** with reference to the natural truth of modern landscape painting, are, on the whole, established.

They amount, as I understand them, to two assertions :—

(1) That a completely new departure in the appreciation of natural beauty—meaning by this, non-human beauty—has been made by the great English landscape painters of the present century ; and

(2) In spite of Mr. Ruskin's own occasional protests against the heedless *identification* of beauty and truth, that this appreciation mainly consists in a wholly new grasp of the actual governing facts and tendencies apparent to reason in the natural world.

It is plain that this artistic perception of the idea in nature not only has a parallel result to that which so rapidly opened upon natural science in the same generation, but it is very largely interwoven with the latter, and dependent upon a similar intellectual aspiration. And the name of this intellectual aspiration is, once more, the modern stand-point. It is the spirit which refuses to believe that there is anything without significance, or any irrational remainder. Mr. Ruskin's account of the true or penetrative imagination, as opposed to the false or fantastic imagination, shows the

* Cf. Ruskin's *Elements of Drawing*, pp. 116 and 262.

profound underlying unity between modern fine art and modern natural science. By these two characteristic achievements of the present century, the discovery of the idea in nature, which was a mere dream in the natural philosophy of Schelling or Hegel, is becoming, to a daily increasing extent, an accomplished fact.

And the same with history. I have not the literary knowledge which would justify me in asserting that the chapter on "The Nature of Gothic Architecture" * in the "Stones of Venice" actually caused a revolution in England, though as to its representing one there can hardly be two opinions. Here, it seems to me, we recognise once more, as in Shelley's isolated saying, the new and unmistakable note of philosophic history, the history which sees the works of men as instinct with the human reality of the life from which they spring with all its necessities and purposes.

Many of Mr. William Morris' writings on art represent this tendency of æsthetic reflection in its noblest form; and his estimate of the historical and social significance of architecture and the architectural handicrafts illustrates the philosophical thesis on which I am endeavouring to insist, viz.: the peculiar force of æsthetic reflection as an exponent of ideal reality. It owes this force to the fact that it irresistibly lays the grasp of objectivity on that individual region of fancy and feeling which is commonly held to be the kingdom of caprice, and which is inaccessible both to abstract reasoning and, as a rule, to the categorical imperative of duty. I do not mean that æsthetic can supply formal principles by which taste and feeling may be directed and deduced; I mean that by analysis *a posteriori* it is able to interpret with vital significance all man's artificial surroundings, especially in as far as they express his tendencies to enjoyment, or to imaginative emotion, or to display. We may observe this new insight in our sympathy for the history of peoples, rather than of dynasties, and of industrial conditions rather than of political disputes; or again in the whole mode of thought which now presides over archaeology, anthropology, and the history of architecture. Thus, for the first time perhaps, man's life is rounded into a totality of which no part can escape the grasp of reason; and here again we recognise in one of its bearings the absolute or modern stand-point. I may add that this development of English æsthetic, with that outburst of artistic idealisation of nature in which it arose, force me to differ fundamentally from one of the conclusions at which its great leaders seem sometimes to be pointing. I do not believe in the artistic degeneracy of the modern mind as a whole. If our every-day

* Cf. Goethe in *Wahrheit und Dichtung*. The interest in Gothic architecture was what he desired in his youth, and saw in his old age.

surroundings reflect a vulgarised social life, a degraded taste, and a blunted sense of form, we must hold this together with the fact that natural beauty has, in this century, for the first time, been thoroughly drawn into the focus of consciousness. Modern life is stronger than any that has existed before, and can bear deeper contradictions. It is plain that the one of these extremes was the condition of the other, which of course does not hinder that the other, when obtained, should have power to rectify the one.

If I further allude to such writers as Robert Browning, Matthew Arnold, and Walter Pater, I do not think it can be doubted that the series of thinkers mentioned in this context, with the addition perhaps of George Eliot, have supplied a reflective and intellectual element in English thought, without which all English-speaking men and women who care for the higher life would have been deprived of half or more than half their philosophical and rational nutriment. All the sciences of civilisation, as they might be called, from aesthetic to economics, which two extremes have naturally met in our greatest aesthetic writers—all these sciences of civilisation have assumed a wholly new complexion under the influences represented by these names. Our professional philosophers, illustrious men as I have admitted that they are, have not as yet occupied the whole place in English life, which has been held by Kant, Hegel, Schopenhauer, Schleiermacher, von Hartmann in the life of Germany. An element has been wanting, which those whom I have called the prophetic writers have supplied. And the missing element is not, as we English are apt to pride ourselves on supposing, the element of ontological superstition, but it is the element of intelligent and sympathetic history, that is, of self-conscious civilisation.

Now it may of course be replied "The dualism which you deprecate in English culture is a proof of English common sense: philosophy ought to be scientific; and reflection upon history and religion and fine art should be kept separate from philosophy, in the mere province of taste and polite letters."

I believe that this states the fundamental question as between objective idealism and English empiricism; and I should like to point out what it amounts to. It seems to mean that man and his works, after the point at which he ceases to be merely animal, are not included in the object of philosophical analysis. I do not know that such a view has ever been explicitly maintained. English philosophy has not been unmindful of law, politics, and the intellectual operations revealed by physical science. Herbert Spencer has, at any rate, what I must consider the great merit of having struck out boldly into the ocean of historical evolution, and there is absolutely no doubt that the positive and constructive tendency, which is heralded

by his life-work, will be more and more imperatively felt, and will bring with it a fusion between abstract science and philosophic history. I have tried to show how aesthetic reflection is paving the way for this fusion in England, as it did in Germany a century ago.

I have not this evening in any way alluded to the work of Professor Caird or of Professor T. H. Green, or of others who have sympathised with them. It was my task to point out those indigenous* conditions of English culture which established, in my judgment, the fact of a recognised imperative necessity for deeper and more human theories of life in England, as elsewhere. The English revival does not primarily spring from Hellas, as did that of Winckelmann and Goethe. If I were forced to name two out of many great men as its chief authors, I should be inclined to select Turner, the landscape painter, and Darwin, the biologist. But though thus original and indigenous, yet being fundamentally an expression of the same necessity, it must ultimately include the material with which the parallel movement began; and therefore I have tried to show, not that German idealism has introduced into English thought an element wholly exotic and unknown, but rather that it has suggested certain intellectual forms and presented certain organised regions of experience, drawn from the analogous, though distinct, development a kindred nation, which may aid in the systematic expression of that many-sided ideal reality which our national mind also has been grappling with and gradually comprehending throughout the present century.

PROCLUS AND THE CLOSE OF GREEK PHILOSOPHY.

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THE fifth century of our era, with which the life of Proclus nearly coincides, for he was born in the year 410 and died in the year 485, was not an age in which we should expect much fruits of original and independent thought. Christian emperors had sat upon the throne for a space of nearly 200 years when Proclus began his career as a teacher at Athens. During that time the fanatical spirit, which has

* I do not suppose that the points of contact between Wordsworth and Kant, or Ruskin and Carlyle, have been cardinal points in the English development. Ruskin detests all he understands of Schiller.

ever been more distinctive of Christianity than its doctrines and beliefs, had begun to infuse itself into the civil law and had resulted in the last decade of the fourth century in the fierce edicts of Theodosius against the old religion. It was made penal to enter a temple, to consult a soothsayer, to offer a victim ; the revenues of the ancient cults were forfeited to the new faith, and the Christians, not content to see the temples deserted and decaying, wantonly desecrated and destroyed them, and threw down the images and effaced the paintings which embodied to the senses the fair humanities of the old religion. It is certain that the Christians shared with the Pagans themselves the belief in the supernatural powers of the classical gods ; they regarded them as evil and malignant spirits, and hence in some measure their rage and fury against their worshippers ; but this circumstance will not account for the passionate intolerance of the Christians. There is, indeed, nothing so appalling and inexplicable in human history as the outburst of fanaticism which everywhere accompanied the triumph of Christianity. In vain we search profane literature for an expression of the like spirit, nor does it show itself in the earlier writings and teachings of Christianity. In the New Testament there is to be found no utterance comparable to the fierce invectives of the saintly Ambrose or of the learned Tertullian against Heretics and Pagans, unless it be the cry of the infuriated mob of Jews, "Crucify Him, Crucify Him." Into the Pantheon of Rome all gods were freely admitted, and the State was tolerant of all religions alike, so long as their followers respected in their overt acts the foundations of the State. From what source did the contrary spirit flow ? A natural supposition is that the Christians were inspired by the same feeling as that which drove the old Hebrew prophets to denounce and destroy the idolater, that they felt *their* God to be the true God, whose authority and prestige it was their duty to vindicate against all false and fictitious ones. This was the temper of Mahomet and his followers, and an eloquent testimony to his purpose remains in the Mosque of Omar at Jerusalem, where, around the interior of the solemn and magnificent dome is emblazoned the lofty precept of the Prophet, to associate in dignity with the most high no one of his creatures. But it was no monotheistic zeal which fired the Christians then or since. To a Hebrew prophet, if he could have appeared upon the scene, the current Christianity of the fourth and fifth centuries must have seemed but a new form of the worship of Baal and Rimmon, just as most assuredly to-day the prophet Elijah, if he were to alight in the sacred city of Jerusalem, would find himself more at home in the Arab Mosque than in the image-decked church of the Holy Sepulchre. Then, as now, few prayers were breathed to the Creator, whose place in the religious mind was all but usurped by

countless local saints. In the fifth century the Church of Christ had already made a compromise with the idolaters, they were to keep their idols, only to change their names; the idea of an all-ruling Providence could not be grasped by the common folk; it could not be symbolised in any graven image, and accordingly it remained almost inoperative on men's minds until there came that great spiritual awakening which we rightly call the reformation of religion.

But it was not against the old worship only that the zeal of the orthodox Catholic was directed; all literature had also become suspect which was either non-Christian or tainted with heresy. Thus Theophilus, who was Bishop of Alexandria from 385 to 412 A.D., tore from the tomb the remains of Origen and scattered them to the winds. At the same time the masterpieces of classical literature were held to be dangerous, just in proportion as they were well written. Saint Jerome was obliged to fast before he opened his Plato or Cicero, lest their harmonious periods should give him more pleasure than the rugged sentences of the Prophets, and we read in his letters how the struggle in his soul, divided between respect for the Christian religion and delight in the classics, made him at last ill, how he fell into a trance, was taken to be dead, and how preparations were made for his burial. "Suddenly" he writes, "I was caught up in the spirit and taken before the Judgment Seat, where there was so much light and such a sheen from the brilliance of those who stood around that I was thrown down to earth, and did not dare to look up; then was I asked what I was and made answer that I was a Christian, but he that presided over the dead said unto me, 'thou art a follower of Cicero, not of Christ, for where thy treasure is, there also is thy heart.'" [Quoted by Milman, *History of Christianity*, Vol. III., p. 227.]

Gibbon is caustic in his reference to the Platonic schools of this epoch: "The surviving sect of the Platonists," he writes, "whom Plato would have blushed to acknowledge, extravagantly mingled a sublime theory with the practice of superstition and magic." This is true, but it should be added that the heathen schools enjoyed to the last one incomparable advantage over the Church; their thought such as it was, was free and unconstrained; their speculations were not cabined and confined within the limits of an orthodox creed. There is, as we should expect, a family resemblance between the Christian and heathen speculations of the first five centuries, and, though they seemed antagonistic to their propounders, they often rested on the same logical basis, were expressed in kindred phrases, and had the same drift. Thus, in reading Proclus, one is reminded of the language of the Athanasian Creed, but neither Proclus nor any other Pagan philosopher ever dreamed of adding to his system

the clause : " This is the Catholic faith, which, except a man believe faithfully, he cannot be saved ; " or this : " Which faith, except everyone do keep whole and undefiled, without doubt he shall perish everlastinglly." In the fifth century the mists of Scholasticism were beginning to close round the human intellect, to obscure it for the next thousand years. In spite of his puerilities, of his system-making devices, of his weak hold upon realities, and his devotion to abstractions, Proclus enjoys the distinction of being the last great independent thinker of antiquity.

The philosophy of Proclus is a futile attempt to evolve the world and all that is therein out of a barren and abstract unity. The outline of his thought is as follows : The primal fount and beginning of all things is the one ; and of this one we can only rightly understand the nature, if we contrast it with whatever is manifold. Now, a manifold merely *partakes* or shares in the one, and is not *one* in itself and by its own right. Rather it has become *one* through the convergence and mutual combination of the many. It has thus suffered or endured the process of becoming one, and is, therefore, both one and not one. But this is just what the primal *one*, the self-one, as Proclus calls it, is not. It alone is not both one and not one ; for if it were so, each part of it would equally be *one* and not one, and there would be no underived and original unity on which to rest the complex universe. The utter and abstract purity of the one, from which Proclus starts, is further brought out in his proof of the position that every manifold is secondary to the *one*. If not, then, he argues, one of two alternatives must be true : the manifold will be either before or else simultaneous with the *one*. But the first alternative is impossible ; for it has been shown that every manifold partakes in the *one*, and the other supposition is also absurd ; for it makes the *one* and the many co-ordinate or co-elementary, and that means that the *one* should become many, just as the many became one by participation. But participation implies convergence and combination. Now, one and many being contraries in logical division, cannot unite by reason of their respective natures, according to which each simply remains what it is, without tending and leaning to the other. There must, therefore, be a third something to compel them together. What is this third something ? It is not *one*, therefore it is many or nothing ; but nothing cannot compel, and *ex hypothesi*, it is not many ; therefore, one and many are not co-ordinate. Both alternatives must, therefore, be dismissed, and the original position be accepted, that every manifold is secondary to the *one*.

This proof, which I have cited in order to bring out the *artificial* and *abstract* characters of the Proclean *arche*, or beginning, is a fair

sample of the dialectical method he employs. It closely resembles that of Euclid, upon whose works he wrote a commentary. It was the aim of Proclus to furnish in his book of theological principles a logic of reality reasoned out with mathematical accuracy from indisputable premises. Spinoza so far as I know, was the last thinker who tried to present his thoughts in an exact and mathematical form. It is to be regretted that metaphysicians have ceased to model their style on Euclid; the increased facility with which their readers would catch the drift and detect the fallacies of their arguments should amply compensate them for the little success they might obtain in the pursuit of such an ideal of reasoning.

I must pass on to consider the other predicates which Proclus attaches to the one. In Chapter 113 of his *Principles*, the one is identified with the good and through the good with God; and in two earlier sections, 12 and 13, he labours to show that the good and the one are the same. His proof is twofold: the good must be beginning and cause of cause, else we must suppose some cause stronger than the good, of which the effect on reality is stronger than goodness. Now, we cannot conceive of such a stronger and better; thus the good agrees with the one in being primal cause of all. Secondly, the good unifies those things which share it, so preserving them; dispersion, however, drives each thing out of its essence. Thus the one and the good, disunion and the bad, having the same results, are the same.

But the chief glory of the one is this: that it brings forth out of itself the world and all that is therein. The products of its creative energy, however, are not all on a level, but, according to the degree of their resemblance to the one, range themselves in a descending series of which the chief terms are being, life, intellect or *nous*, soul, and at the bottom of all, material and extended matter. Of these dependent terms the first, that is being, is directly due to the creative activity of the one, and inherits therefrom a certain causal power which adapts it to create in its turn the step immediately next below itself, namely, life. Life in turn begets intellect, intellect soul, and soul material body. But though not directly creative of the grades of reality which come after being, the one is indirectly the cause of them and responsible for them. It brings forth only in a higher degree whatsoever its creatures bring forth, and just in this consists its higher worth and perfection, that it ultimately causes all things, even as the inferiority of extended matter, the lowest rung in the ladder, lies in this, that it begets and causes nothing.

Proclus describes the activity of creation in the following words: Every cause productive of other things brings forth what is after it and succeeds it without going out of itself. Herein it imitates the

one which without movement founds all below it. In virtue of its intrinsic perfection and excess of power a cause creates its effect without itself undergoing change or diminution, abiding ever full and complete in itself as before. Nor is the creature to be considered as something divided off from the creator; for such an idea ill befits generation and generative causes. Nor is it a transformation of the matter of the creator, for the latter remains after the creative act all that it was before. To use a simile, the creative *one* is like a fountain which should continue to throw up water without drawing from any supply. What determines the creative force to take one line rather than another, to produce this rather than that? Proclus answers that each agent generates what is like unto itself rather than what is unlike, an answer suggested by the confusion—which mars his entire theory—of the relation of participance which holds between the genus and its species or the idea and its phenomena with the dynamic relation of cause and effect. In virtue of this moment of identity between the cause and the caused the latter may be said to remain in the former at the same time that it issues therefrom, for that which merely issued forth without also remaining would have no sameness, and, therefore, no similarity with its cause. Thus the world at once proceeds from and abides in the supreme unity. Nor does it only abide therein, but, so far as it goes forth, also returns into the same. For the one is the good, and all things seek the good, which is thus both source and goal of all. And as the process was from like to like, so is the return, and the meanest object in creation reverts to the fountain head of reality through the same intermediates by which it descended therefrom. Thus all things at once abide in, and proceed from, and return into, their causes; and each moment in this cycle is inseparable from, and necessary to, the others; the caused cannot merely remain in the cause, for if so there would be no distinction of it, and, therefore, no procession of it therefrom. Nor, secondly, does the caused merely proceed, for, if so, there cannot be that bond of sympathy between the two which is the condition of the one participating in the other. Thirdly, the caused cannot merely return, without also abiding in, and proceeding from, the cause; for then not having drawn its essence from the cause, there would be no reason why it should revert thereto, since the inherited essence can alone found in it the desire to return. It retains the memory of its origin, and is filled with longing to find again, as it were, its home and resting place. Thus the creative energy moves in a cycle, and every creature, even the humblest in the scale, in seeking its welfare aspires to be once more united and absorbed in the supreme one.

The one is in this argument identified with the good; but such is the anxiety of Proclus to keep the oneness of his first cause pure and

whole, that he does not always allow it to be even good. Thus in Chapter 40 of his *Principles of Theology* he shows that the good, as being cause of itself and self-subsistent, is also self-sufficing, and so worthier and better than that which owes its being to other than itself. But for this very reason, he continues, the good cannot be the same with the one; for as self-subsistent it is self-producing, and as producing itself it is before itself, and as before itself it is inwardly divided and no longer one. But whether or no the one is the same as the good, it is anyhow not the same with being, and we must not say of it that it is. It is truer to say that it is not; for it occupies a level above being. In his treatise on the Platonic Theology, Proclus sets at the summit of creation a triad consisting of the one, of power, and of being; power being a middle term by which, and through which, being proceeds from the one. In the *Institutio Theologica, or Principles of Theology*, the principle of resemblance is invoked to bridge the gulf between the one and being, and we hear nothing of power or "dunamis" in that capacity. The being, however, which comes next after the Divine unity must not be confused with gross matter; rather it is unextended and has no parts, occupying a higher level than even intelligence and soul.

As regards the next grade in the hierarchy of reality Proclus is not consistently of one opinion; sometimes he asserts it to be life or soul, which is in itself, and, as such, living. But more often it is said to be nous or intelligence. Of intelligence we learn that it is essence without parts, that it is without size or body or movement. Eternal, over and above matter, a manifold unified through the immanence within it of the Divine one.

The conception of essence without body, of immaterial being as we should call it, is well worked out by Proclus. It is peculiar in being able to turn itself back upon itself, for each of its elements is in such intimate union with all the rest that one is in all and all in one. Body cannot thus turn back upon itself because of the separation of its parts which lie outside one another. Such self-reflection is neither through body nor with body; it is, moreover, the ground of self-motion, for the self-moved is not mover as to one part of itself and moved as to another, but it moves and is moved throughout and in its entirety; it is thus the object of its own activity.

There is not much occasion to dwell upon the other characteristics of nous, as Proclus, in his ill-digested manner, simply sets down whatever he found attributed in Aristotle. Thus nous thinks itself, it thinks that it thinks, it is the fulness of ideas, it is the goal of all desires, the source of all things, and from it the eternal cosmos derives its being. The sole peculiarity of Proclus' theory of nous is

this : that it is not a principle of unity and synthesis in itself, but owes its oneness to something else than itself. In the hierarchy of reality it does not even directly succeed the Supreme One, and is but mediately participant in that unity through abstract being.

I have said that it is impossible to elicit from the writings of Proclus any consistent view of the relations of life and soul and intelligence to one another. In some passages life is asserted to be the prius of intelligence ; in other passages life is the special mark of soul, and soul is life and liver in one. According to the principles of theology the soul proceeds from nous, and derives therefrom the ideas and essential notions of all things. The soul is a mean between the immaterial and eternal and changeless world of pure intelligence or nous and the temporal and changing world of sense. As such the soul is all things, though not all things in the same way ; for of the purely intellectual forms, which precede it, it is but the image and likeness ; they belong primarily to nous and only find an echo in the soul. But of the sensible things which come after itself in the order of creation the soul is author and cause, and withal the eternal pattern and exemplar. They are sunk in matter, it has in itself their immaterial notions ; they are divided in space and time, it is neither in space nor in time. But the gulf between soul and body still seems to Proclus too abrupt to be bridged at one step, for the soul turns its regard back upon itself ; it knows and is conscious of itself, while, on the other hand, no bodily thing thus returns upon itself ; for in doing so it would be separating itself from body, that is, from itself. It shows how far the thought of Proclus fell short of a true idealism, that in order to effect the transition from soul to body he invents a series of vehicles or garments of the soul, each of which is a little more material and less subtle than the last, until one is reached which is sufficiently dense to connect directly with extended matter. The same device was used by a recent writer in a book called *The Unseen Universe* to render feasible the idea of a future life for the soul of man. Proclus was the more easily caught in the fallacy, because he made resemblance or similarity the sole bond between creator and created. The difference between soul and body cannot, however, be got over by interposing links which are more of one and less of the other, and the problem can only be properly approached if we begin by discarding the time-honoured maxim, which has worked so much confusion in psychology—that only like natures can interact.

It is through its connection with body that the soul can be moved by other than itself ; conversely body, which as such is moved by other than itself, becomes in virtue of the presence of soul within it self-moved. This faculty of self-movement, which it imparts to body,

the soul possesses priorly and in a higher degree itself, and is in so far above and beyond bodies which are only self-moved through their participation in soul. As in respect of movement soul is above and before body, so is nous or intelligence above and before soul. For soul does not merely move other; it is also moved, for it moves itself. But nous moves other without being itself moved, and in being thus unmoved it imitates the one.

The above is as brief and consistent an account of the system of Proclus as I can extract from his 212 heads of theology. These heads, however, contain much by way of accommodating his somewhat abstract first principles to the current superstitions of his day. Thus the one, which is in the highest sense God, begets a host of monads, which are also gods in a secondary sense. There are some gods who guard us; others through whom we are purified; others in whom the fatherly, or generative, or providential, aspect is predominant. These gods, agein, are not in direct communication with mankind, but the Divine influences are conveyed down to us through a host of demons answering to the angels of Christian belief. It is impossible to reconcile with each other the motley utterances of Proclus about the gods. Thus we read of Divine bodies, Divine souls, Divine intelligencies; yet all the while every god is above being, above life, above intelligence. Every deity, we read in Chap. 123, is, on account of its super-essential oneness, ineffable and unknowable. The qualification is, indeed, added that deity is known and comprehended from that which shares in it; but this concession does not assure to us any knowledge of the Supreme *One*, for in him or in it nothing shares.

By the word "share" I here translate the Greek word *Metechein*. Plato used this word to express the relation between the fixed and eternal notion, which is one, and exists only in the mind and in the presentations in sense of the same under conditions of time and space. These sensible embodiments of the super-sensible notion are said to share or partake therein. The transcendental character of the one, out of which the riches of creation flow, is clearly brought out by the epithet which Proclus applies to it, of unshared or unparticipated in. This is a height of abstraction to which Plato never soared; perhaps because he always kept one foot on the ground of reality. The attribute in question really adds nothing to the barren and lifeless monad which heads the Proclean system, for it had no meaning at all. An idea or notional form, which is unparticipated in, is to be compared with the subject which has no object or object which has no subject of some modern philosophers.

Without going so far as a noted philologist who recently, with the becoming ardour of a specialist, tried to resolve philosophy into

a study of mere words, we may yet safely say that mere display of words may easily pass itself off as profound theorising, just as the repetition of unmeaning words may claim to be an exercise of faith. To a modern mind the speculations of the new Platonists must seem vain and empty. We do not need to be reminded that the world is one ; our problem is to know wherein this oneness consists. Is it a unity of mere force or of life, or of a will working out the good ? And in applying ourselves to the search we take account of a thousand concrete facts which a thinker like Proclus, who withdrew himself from nature, knew nothing of. We rightly pride ourselves upon starting from a basis of sensible facts ; the neo-Platonists prided themselves upon not doing so—indeed, they lived in an age when they could not possibly have felt the necessity of doing so. The philosopher of that and of every succeeding age, until Bacon startled the world with his *Novum Organum*, esteemed it enough to sit down and draw out into an imposing array of premises and conclusions the stock notions inherited from the more concrete thinking of an earlier age. There is an aspect of Platonic speculation which Aristotle never wearied of condemning as empty and unreal, and that is just the aspect which alone attracted the latter-day disciples of the great master. Anxious to fix our attention on the conceptual element in experience, Plato sometimes allows himself to speak as if the ideas had a competing reality of their own apart from their sensible presentations, as if the ideal order stood outside and over against every-day reality. The development of mathematics, the earliest and most abstract, and, as most abstract, also most exact of the sciences, encouraged this tendency of the Platonists to endow abstractions with a spurious reality of their own. Like the act of judgment which constitutes it, a concept or idea is a one in many, a single reality under various aspects, or various aspects seen as one reality. Proclus fixes on this synthetic character of all ideas, petrifies it into a solitary monad, and sets it as God at the apex of his hierarchy of abstractions. With equal reason he might have fixed on the other characteristic of ideas, namely, their complexity and manifoldness. You can only get out of an abstraction what you have first put into it. It is the weakness of all theories which try to explain the universe by reference to matter or force, or will or thought, alone that they put the part in place of the whole. They repeat the error of the new Platonists, though perhaps in a less glaring manner, in so far as any one of these principles is more concrete than bare unity. To declare that the world is one is not to solve, but merely to state, the problem of philosophy. The Eleatics had already so stated it, and Proclus merely reverted to the initial position of Greek philosophy. As it is the earliest, so it is the least fruitful of all positions.

The world can be accounted for by nothing short of itself and of its own fulness ; and all we can rightly hope for of philosophy is, not to give us an explanation of it, but only to rid our minds of unworthy conceptions, and gain some few clear principles which may help us to order its riches.

It has often been pointed out that the natural religious counterpart of new Platonic thought was extasy, a mental blank, namely, reached by shutting out from one's consciousness all concrete aspects of the world, such as its beauty, its orderlieness, its morality, and by concentrating oneself on its oneness. We do not hear how many times Proclus attained to this momentary absorption in God, but Porphyry relates that his master, Plotinus, made it his end and aim ; it was to be made one with and brought nigh to the God of all, who has neither physical nor spiritual form, but is above reason and intelligence. In all the years of Porphyry's discipleship, however, Plotinus only won such extasy four times, and then by means, not of power, but of an unspeakable energy or activity, from which I conclude that he was a man of very discursive intellect ; for I have frequently sought and attained to a similar state of extasy when I have wanted to put myself to sleep. But it is wrong to laugh at these poor Platonists ; their fits of extasy were at least as rational as the forms of devotion inculcated by the late Dean Mansel. When we have learned from that celebrated divine to deny of the Deity all positive predicates, even moral goodness and intelligent personality, because to attribute these would be to impose conditions on the unconditioned —when we have thus set up afresh the altar of the unknown god, what shall be the manner of our adoration ? We are to accept the miracles of the Bible, and with unquestioning faith to repeat the Athanasian Creed.

Philosophy lingered on at Athens after it was extinguished elsewhere. Perhaps the long consecration of the site to Truth and Beauty, or the august monuments of the gods which overshadowed it, deterred the Christian Emperors of Byzantium from assailing these last upholders of free enquiry. At last, however, the long threatened blow fell, when in the year 529 the Emperor Justinian issued a decree abolishing the stipends of the teachers of philosophy and forbidding them to teach any more. The rest of the somewhat pathetic story I will tell in the words of the chronicler Agathias. At this time, he writes, Damascius the Syrian, and Simplicius of Cilicia, and Eulalius the Phrygian, and Priscianus the Lydian, and Hermeas and Diogenes of Phoenicia, and Isidor of Gaza, were the chief writers and the flower of the philosophers of our age. Now they were not satisfied with the prevalent opinions of the Roman state, and thought that the Persian polity was far superior ; for they believed the

praises which they heard commonly bestowed upon the Persians, and were convinced that in Persia the Government was entirely just, and that they would find there realised that union of philosophy and kingship of which Plato dreamed; there also would they meet with a body of subjects entirely self restrained and orderly. At home they found themselves unable to conform to the established beliefs of Christianity, and threatened by the terrors of the law, if they tried to live their own lives according to the precepts of their philosophy. Accordingly they set forth and plunged into foreign and unknown wildernesses, where amid folk of strange and uncouth tongue they were to spend the rest of their days. But from the first they found the rulers of their new country puffed up with pride and insolence, and soon they realised that the common folk were brigands and burglars, who as often escaped justice as not. In Persia every sort of wrong was committed; those who had the power practised every cruelty and inhumanity against the weak; and what shocked the immigrant philosophers most of all was this, that although each man was allowed, and actually took, as many wives as he chose, yet adultery was rife. For all these reasons the philosophers began to reproach themselves with having gone thither. And when they conversed with the King and found that, far from being in earnest with philosophy he was over-bearing and little inclined to listen to their steep wisdom, nay, that he had no opinion in common with them, and was himself the slave of Polygamous custom, then they shrunk from such ill-starred companionship, and resolved to go back again to Greece. And this notwithstanding that the King was fond of them and pressed them to stay; but they thought it was better for them to return into the Roman dominions while they had the chance, and die there, than to stay among the Persians in enjoyment of the very highest honours; so they went back home and bade farewell to the hospitality of the barbarian. Still their sojourn abroad turned out to be of some advantage to themselves, for it secured to them the privilege of living the rest of their days as they liked in pursuit of their favourite philosophy. For about that time the Romans and the Persians made peace, and a treaty, in which it was stipulated that the philosophers were to be allowed to return without molestation to their former habits, and that no pressure was to be put upon them to go outside their natural convictions or forsake their ancestral faiths.

What good, simple-minded folk these Platonists must have been, to believe that the pattern laid up in heaven could be realised anywhere on earth. A similar but earlier instance of this naive faith and enthusiasm is related in Porphyry's life of Plotinus. He tells how the Emperor Galienus, and his wife Salonia, honoured and

reverenced Plotinus as no other man. Plotinus, who had read of the Pythagorean brotherhoods of the long past, told the Emperor how, once on a time, there had been a city of philosophers in Campania, and besought him to re-found it and bestow on it the country round, and the new settlers were to live under the laws of Plato, and call their city Platonopolis. Plotinus promised to retire thither with his companions, and the philosopher's scheme might have been easily carried out, only some of his enemies influenced the imperial patron and prejudiced him against the experiment.

And there was another reason, not mentioned in this account of Agathias, which prompted these philosophers to betake themselves to Persia. Plato, in the *Timaeus*, the favourite text book of his later disciples, told of a visit paid by Solon to Egypt, and of how the Greek sage there discovered that neither he nor any other Hellene knew anything worth mentioning about the times of old. One of the priests, we read, who was of very great age, said: "O Solon, Solon, you Hellenes are but children, and there is never an old man who is an Hellene." Solon hearing this said, "What do you mean?" "I mean to say," he replied, "that in mind you are all young; there is no old opinion handed down among you by ancient tradition, nor any science which is hoary with age." There was thus an old belief among the Greeks that the East was the home and source of much hidden lore, which, if we once could become possessed of it would solve all the riddles of existence. In the early centuries such a belief was the more plausible because the Neoplatonic philosophers were, themselves, often of eastern origin, while both the Christian and heathen cults drew much from oriental sources. There are traces in the earliest Christian beliefs and practices, especially in Monachism, of influences which must have travelled all the way from India. This hope of discovering in the far East some hidden and precious wisdom, which the Greeks with their love of innovations had forgotten, was a strong inducement to the last of the Greek philosophers to seek in Persia a refuge from the encroachments of an aggressive Christianity. History repeats itself in with strange fidelity, and in the esoteric Buddhists of to-day we encounter along with the same theurgic practices the same fancy that somewhere in the far East, perhaps in the solitudes of far Thibet, there lingers a mysterious insight into things, a revelation denied to Christians and transcending modern science.

Our opinion of the Persian king Chosroes is raised when we read of the clause he added to his treaty with Justinian, that the heathen philosophers should live unmolested after their return. If the band of refugees travelled to Persia by the route they would have followed to-day, namely through the countries of the Iberians and Armenians, they must have fallen in with friends and disciples on the way.

Perhaps the Georgian and Armenian versions of Proclus and Hermeias which remain are a monument of this temporary exile of the last of the new Platonists. At the foot of Mount Ararat I found, in an Armenian Monastery, two versions of the principles of theology of Proclus; of these versions the latest was a translation of a Georgian version, and had been made in the year 1400 by an Armenian priest, who added to his work a note to the effect that he believed a version to have been already made direct from the Greek in the fifth or sixth century, which version had been lost. This earlier version I found in the same library. I cannot say whether the Georgian version was made direct from the Greek, or whether it was translated from the early Armenian version. The work of Proclus on *Causes*, lost in Greek, also exists in Armenian, and, like the *Principles*, was very exactly translated. Both works remain in Arabic. In Armenian libraries I have also found a short treatise on the universe by the philosopher Hermeias, not, I believe, otherwise preserved. Thus the writings of Proclus have met with a vogue and popularity in the East scarcely less than that of those of Aristotle. Other monuments also remain of the zeal which the new Platonic sages of Athens could implant in their disciples from the far East. Several dialogues of Plato, among the rest the *Timaeus* and the *Laws*, are still preserved in very exact and accurate renderings in the ancient Armenian language. The translation of the *Laws* is a remarkable fact, and significant of the importance attached to that dialogue, which, as we have already seen, was to form the written constitution of the new Italian settlement of Platonopolis.

THE PSYCHOLOGY OF SPORT AND PLAY.

By A. M. OGILVIE.

SOME people in some moods have a fondness for rationalism of a cheap kind, and profess to wonder very much at the foolishness of other people engaging in pursuits which have no visible utility for their end, and are prompted by or arouse feelings with which the Rationalists have no sympathy, generally because they have never actually experienced them. To persons of this class it seems mere childishness to take pleasure in knocking a ball to and fro over a net, or in hitting it with a wooden bat about a field, or in any other game of the kind; but the great majority of people, in this country at any rate, do not

trouble themselves with such questions. Their feelings either as players or as spectators come to them as a part of their human nature, and they engage in sports and games without question and without the least suspicion that their character as rational beings is thereby in any way endangered. In London last winter 20,000 people watched a football match with eager interest, and probably not one of the number ever considered what attraction to draw them all together there could be in the sight of twenty-two men, with immense exertion, kicking sometimes an inflated leather-covered bladder, and sometimes one another. But if we leave out of sight the feelings which, as we probably know by experience, do exist in the minds of players and spectators, and if we put ourselves at the point of view of the strict Utilitarian and seek on *a priori* grounds to find a reason for such a gathering, some questionings of the kind do not seem to be so inappropriate. Our tolerance and encouragement of sports and pastimes seems mostly a result of instinct rather than of reflection, and the ordinary man if called upon in such a case to justify his love of games might for a while be at a loss to find a satisfactory explanation. It does not follow, however, that the love of games is really irrational, and that it should not be allowed to influence us. Instinct is in many matters a safer guide for men in general than reason, or, at any rate, than the first judgments of reason. If we search out these strong influences and instincts which prompt men to engage in sports and pastimes we find them springing from the very roots of human nature and having an important share in its fulfilment and development.

The ordinary doctrine of the "Play Impulse" is a common-place in Psychology. Every writer points out that for the young the ordinary activities of life do not use up the whole nervous energy, as they do in the case of adults, who have to undergo the necessary labour of self-support, or, at any rate, some round of duties or occupation; and that there is, therefore, as the nervous force accumulates, a tendency to break into spontaneous random action, uncontrolled by any settled purpose. I do not think that it is at all implied that the accumulated energy is greater in volume in the child than in the grown man, but merely greater in relation to its ordinary channels, just as the brook overflows its banks more easily and more rapidly than the river.

The relations of the child to external things are few, and are exercised within a narrow compass. As intelligence increases the relations increase in number, and stretch out farther and farther from the Central subject, requiring for their fulfilment more and more of the whole active force; and so the exuberant activity of childhood, aroused with little or no provocation, changes gradually into steady

purposeful action, or, at any rate, into the regular pursuit of settled ends, however worthless those ends may be.

Looking at this aspect of human nature, we can easily account for the simple games of children, which often seem to depend on very slight incentives to activity. Such incentives, indeed, are not required. But we can hardly see how the organisation and practice of games and sports should so greatly increase, as we see them do, as the necessity for them apparently grows less. Sometimes it even seems as if the natural order were reversed, when we see children's play made up of imitations of the occupations and pursuits of grown-up people, and adults occupied in games in which the immediate ends pursued are in themselves apparently unattractive even to a child. The simple theory with which we started needs, therefore, some development.

Looking at our facts we see that men in general participate in sports and games in two characters, namely, as agents or players, and as spectators. At first sight it seems as if those two characters were unlike, but on examination it will, I think, be found that the two really merge into one another, and that from the point of view of the psychologist the same laws govern both conditions. The contrast is, perhaps, sharpest in those sports and games in which bodily activity is involved to any great extent, as, for instance, in what we may call the great class of ball games. But in describing the feelings of the spectators of any active sport we may, I think, take it as an axiom that the feelings of the spectators are of the same kind, though differing in intensity, as the feelings of the players. They are, in fact, a reflection of those feelings, but always, of course, with certain modifications due to the difference in the circumstances of the player and the spectator. Even if a little reflection on our own experience did not lead us to realise this, we might deduce it easily from the general principle that action in idea is of the same psychological nature as action actually carried out. As an example, let us take the feelings of the spectators of a football match. They will experience a reflection or reproduction of the feelings of activity experienced by the players and will also experience the pleasure which accompanies the sudden variations in the activity which are called forth by the uncertain requirements of the game. Such feelings of activity are always pleasurable when they are not out of due relation to the bodily strength. In the players fatigue may overcome the more pleasurable state, but in the spectator, since the feeling is not of actual, but only of incipient action, there is no danger of this revulsion. The resulting state of mind has also more of the character of feeling than of the consciousness of action; but still the two states are essentially of one kind. The feelings of the spectator will never be as intense as those

of the player, and in some cases, from their less variation and their clearer definition as feeling, they may even lose their pleasurable character more quickly. Supposing that there is no over exertion in the players, the rapid and unexpected variations of activity seem ever to give rise to fresh delight. The consciousness of the spectators does not realise this pleasure in its freshness and variety. It has more of the character of feeling proper, and may at length grow wearisome through monotony. It is a character of all feelings, however pleasant in their first experience, that when once fully realised as such, they have a tendency to decline. The pleasures that we can clearly anticipate are never keenly enjoyed in experience.

We will assume, then, that the interest of spectators takes its rise from the same source as that of the players, and that whatever we may have to say of games and sports, psychologically considered, will hold good, with due modification, for both classes. But whilst in some games the two characters can hardly be discriminated, and the experiences of both are so much alike that it matters little in which relation a person may turn his attention to them, in others the experience of the players is very much affected by the severe and exhausting nature of the necessary action, and it is in these cases that there is the most marked difference between the feelings of the two classes. We might, therefore, make the amount and intensity of the action involved the basis of a classification; so we should have the best chance of scrutinising the whole range of the states for the sake of which men engage in sports. Probably no one will deny the topmost place in this classification to the various athletic contests which are common amongst our own countrymen, as, for instance, foot races and boat races. It is not exactly easy to say what are the motives which sustain men in such pursuits. They are not universal amongst mankind. Although in this country we take them as matters of ordinary course, they have sometimes, in the mind of the intelligent foreigner, excited a suspicion of our national sanity. Taken by themselves they can hardly be said to be pleasurable to those who take an active part in them. Indeed, in any contests worthy of the name, the severity of the exertion is generally prolonged until the discomfort and pain grow to a pitch almost beyond endurance, and certainly beyond the endurance of our ordinary moments when no other strong impulses are sustaining our efforts. Probably no one will admit this sooner than those who have habitually engaged in such exercises.

Whence comes the exciting and sustaining impulse? Possibly from the pleasure in mere activity, such as a child has; but this commonly only for adults on whose activity circumstances in general places a very unusual restriction, for I am speaking not of moderate

exercises, but of violent and severe efforts. Habit also may lead to what we may call an appetite for some special mode of long practised activity; but these causes alone can hardly account for the passion for the severe physical exercises and contests which make so large a show in modern life. To explain their attractiveness we must imagine, I think, a special pleasure which accompanies any exercise of our extreme powers whether bodily or intellectual, and one also quite distinct from that which accompanies exercise of a normal and moderate kind; any effort which appears to place us in relation to our environment superior to our ordinary relation, and this we find in the pleasure accompanying. Mr. Matthew Arnold has pointed out how great is the temptation in spiritual and intellectual matters to what he calls excessive self affirmation, and it seems that there is also in human nature a great liking for bodily self affirmation or realisation. It is a fact of human nature, which no one hardly can have failed to observe, that the individual mind is greatly affected by its habitual relations to its surroundings. The number and range of our joys and sorrows, of our exaltations or despondencies, which after all are merely relative states arising by way of contrast to the ordinary background of consciousness, do not perhaps depend so much on lasting relations as on fluctuating circumstances and accidents, which come alike to all sorts and conditions of men, and pretty equally to all, but the more constant relations arising from health, strength, and beauty, or even from the more artificial advantages of wealth and social position, have an all-powerful influence in shaping the more fundamental and constant parts from self-consciousness. If then we can change this basis of consciousness by improving any apparently permanent relation to our surroundings, the pleasure gained is not merely a fleeting one, but a deep and lasting satisfaction which is more than an equivalent for some intermingling pain experienced at the moment. To the nature which can aim at and realise this higher satisfaction men instinctively give honour, even though it is manifested in apparently worthless or brutal exercises. In the bulldog pluck, which dies but never admits its inferiority to any overwhelming force, we English have chosen as one of our ideals an instance of this instinct of self affirmation. It seems to be a perpetual craving of the human mind to fulfil and enlarge the possibilities of its being. Again and again it reappears in History. We may attempt to measure the instinct by regarding some of its results, but it has its origin in the deep places of the Universe far beyond the view of Science. The triumph of the Athlete in his supremest effort, agony though it also be, the glory of the thinker in the advance of his intelligence, and the delight of the Artist in his increasing skill, are all examples of the satisfaction of the same impulse mani-

festing itself in strong minds of different characters. In ordinary lives, after the first flush of youth, when the normal growth of mind and body has ceased, there is perhaps little enough evidence of its presence. In the thinker and the artist it cannot be satisfied under the same conditions as for the athlete. The vulgar strong excitement of contest is fatal to the finer kinds of thought and feeling, as well as to long sustained silent and sympathetic communion with the objects of thought or representation. Ability for the lower physical effort — though it also is in its own way at the same time a spiritual effort—is however a more common heritage of mankind, and the satisfaction of superior performance is more easily attainable in this way, just as the delights of the senses can be realised by nearly all but the higher pleasures of thought and feeling by few only. Hence in common men the instinct tends strongly to seek some physical accomplishment for its satisfaction.

In Athletic contests there is, however, as I have said, a painful accompaniment sufficient not only to deter the more sensitive from such exercises, but also to weaken all performance not sustained by other stimulation.

The presence of crowds of interested spectators and the excitement of actual contest are the necessary conditions of the most successful efforts of Athletes, because they add the stimulus necessary to counteract the restraining power of pain, and hence some curious results have worked themselves out.

The forms of contest which have prevailed at all periods have been those which could be viewed by large bodies of men. We have heard often of hermits and recluses becoming great thinkers or artists, but never, I think, of one who has broken the record, say, for a ten-mile run, by a solitary race against time. And it will be found a true law, I think, that the nearer the exercise may be to the physical end of the scale the more necessity there is for the stimulation which comes from the presence of sympathetic crowds. So great indeed is this necessity that every artifice is resorted to to arouse interest in spectators. I read lately in an evening paper that on last Sunday week four men started from Kennington to walk to Epsom and back for wagers, and that large crowds gathered to watch them, because, instead of walking in the ordinary way, two of the men wheeled barrows, the third carried a bottle on his head, and the fourth walked with an 8-lb. dumb-bell in each hand. Such races it is said frequently happen in London.

The contests which are most common are, as I have said, those which can be easily witnessed by large crowds, and can also be understood and appreciated by them. Running, rowing, and walking

races are much more frequent and more eagerly contested than any other exercises, which, as they may give scope for greater cultivation and skill, might be supposed to be more interesting, but fail in that respect because their performance cannot be fully seen at any distance, and also because they are too far removed from the ordinary activities of life for their skilful performance to be keenly appreciated by the general body of spectators. It is true that the most popular sports have perhaps an apparently more direct relation to utility than others which depend on acquired skill, but this is not so much the reason of their popularity as the fact that they are readily appreciable by masses of spectators. An exercise which not only involved a painful degree of exertion, but also failed to interest spectators, could never become usual. On this principle I think we may account for the greater popularity of cricket and football above all other ball games—their action is on such a scale as to be easily visible at a distance, and is of a kind that can be realised, to some extent at least, by nearly every one.

I have, perhaps, in these remarks laid undue stress on those sports which involve some painful feeling—neglecting those in which manifestly men engage as pleasurable in themselves. The occasion of these in early life is the necessity for some outlet for the super-abundant nervous energy, and, in later life, the necessity for variation of activity which is often rendered monotonous, or is unduly curtailed by the relations into which men are forced by the course of events.

To a great extent, and especially in the simple forms, these sports are due chiefly to what may be termed an appetite for activity. The man who paces up and down some restricted walk derives little positive pleasure from the activity, but he satisfies the mere craving for action which is so strong in all human beings. In games in which more or less skill is involved there is, besides, the feeling of more complete self-realisation—an enlargement of the idea of self which by competition with others and by their record of observation acquires an objective reality which would otherwise be impossible. A little reflection will show us that the notion of self is made up of an aggregate of ideas of relations to an environment of certain types or standards, which in every society and in every physical situation we find as parts of our direct consciousness. Self is the sum of the modes in which we realise our existence measured by these types and standards—our habitual modes are certainly of chief consequence, but also any exceptional achievements have a great effect, especially if, by some visible mark or symbol, a lasting memory of them can be established. Hence the value men set on prizes, crosses, titles of honour.

I have dwelt on this point because in the ordinary empirical psychology it is usual to impute the feeling of satisfaction which accompanies any successful exertion either of body or mind to a sense of the inferiority of others, or even to the realisation of their discomfiture. This, however, hardly seems credible. Could the spectators of some feat of strength or skill give their hearts applause to a man whose main feeling was one of superiority to themselves. Could there be any friendly feeling between competitors, if the feelings of the victor were, and were known to be, simply feelings of exultation at the defeat of others.

The old custom of the prize ring, that before two pugilists commenced to fight they shook hands, indicates more truly, as I believe the actual nature of the feelings both of victor and vanquished. The triumph of the conqueror is a feeling of satisfaction in the realisation of his strength and skill—but not a mere feeling of pride at having beaten his rival, far less mere satisfaction at his defeat; nor is it at all inconsistent with a feeling of considerable satisfaction on the part of the vanquished at having faced so severe a discipline. The feelings of the two are not different or opposite in quality but differ rather in degree only.

Besides the same feeling may exist where there is no contest. The strong man may glory in his strength and courage in climbing mountains, or in undergoing hardships and facing danger in lonely hunting expeditions. Though such delights are confined to exceptional natures, they are nevertheless illustrations of the law that I have tried to suggest, that what gives pleasure is an enlarged realisation of self, or a more complete realisation than the ordinary circumstances of life would otherwise allow.

In analysing the emotions of activity Professor Bain speaks much of what he calls the emotion of pursuit, or sometimes of a plot interest, terms which seem to me very vague and not suggestive of any definite feelings which we can recognise in consciousness. As instances of this custom he quotes the feelings of the hunter as he nears his quarry or of the beast of prey pursuing its victim. A little reflection will, I think, convince us that this is a very insufficient record of the pleasure of field sports.

The one thing that seems necessary to arouse interest is some object, of which the movements cannot be anticipated, and give rise to ever varying exercise on the part of the sportsman. It is true perhaps that, urged by hunger, the tiger springs with all its might upon its prey, but if we watch a cat or kitten playing with a mouse we see at once that the desire of bringing down its victim is by no means a strong motive. It is caught only to be released and pursued

again and again; even after it is dead it is often thrown about as a mark for activity in renewed pursuit.

Men have devised numbers of games played with balls; one and all depend for interest in the movements of the ball, which in themselves are quite uninteresting, but furnish, as the ball bounds or rolls hither and thither, an object towards which an endless variety of actions can be directed.

The same purpose is fulfilled in field sports by the animal hunted for its life. A fox which for a time outstrips the hounds and doubles bither and thither, birds which suddenly rise, a fish which may at any moment rise at a fly, all serve the same object, and, as their movements are even less to be realised in anticipation than those of a ball, the movements of which depend upon a player, so they are the most perfect incentives to fresh and varying activities. Just as ordinary feelings long sustained in consciousness or fully realised in anticipation lose their pleasurable character, so actions which can be anticipated or are long unvaried not only cease to please but are even tiresome or painful.

So much for the emotion of pursuit.

So also Professor Bain considers as a pleasant element in field sports the satisfaction of the end of the action, i.e., the capture of the object of pursuit. From what has been said we see that this is hardly realised. The desire of capture is not itself the chief motive of the sportsman. We may have some traces still left us of the feelings of savage ancestors who lived by hunting, and to whom the capture of prey was the opportunity of satisfying hunger, but to most people the end of the chase simply means the end of the pleasure which it has aroused.

I should have liked to have been able in this paper to show how the same laws hold good even for games so different as card games are from Athletics. Card games perhaps only by a stretch of language can be called active amusements. There is no doubt that the states of mind of the players take on the character of cognitions rather than of volitions, but the same characters are combined to some extent even in the simplest field sports, and I believe the same laws would be found to hold good for both classes.

We are apt in considering volitions to look only at those of which actual movement is the most striking character, but on this method we should class higher as volitions the actions of the private soldier, who performs laborious marches and charges the enemy, than those of the General, who, sitting at his head-quarters, by his telegraph wires, controls the movements of vast armies.

In sport and play as in all other conditions our mental states men are at once Volition and Cognition and Feeling—sometimes one character

predominates, sometimes another. What man seeks in amusement is to fill up the vacant possibilities of his consciousness, and sometimes it is consciousness of one character and sometimes of another that he seeks. The handicraftsman, tired of monotonous action, will commonly turn to books and intellectual amusements. The tired thinker to some active exercise, however simple. The countryman, who has his full share of outdoor activity in ordinary life, loves nothing so much as to have his feelings aroused by a blood-curdling melodrama.

SYMPOSIUM—THE NATURE OF FORCE.

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[*Abstract.*]

PART I. INTRODUCTORY. METHOD AND POSTULATES OF THE INQUIRY.

Progress in ontology, as in other subjects of study, *must* start from the existing beliefs in the mind of the inquirer, or from some of them.

If the beliefs thus made the basis of a first investigation have been chosen with judgment, the inquirer will find himself, after he has traced their legitimate consequences, in a better position to review all his ontological beliefs and to amend them, before proceeding to take a further step of a like kind. This is the *only* process whereby, when repeated as often as may be necessary, any individual mind can make sound progress.

The following are the beliefs which are treated as fundamental in the present essay. The reader is requested to accept them as postulates while he is occupied with it. He may afterwards make any or all of them the subject of a further inquiry, with the advantage of knowing what consequences they involve. If they stand this scrutiny, and if the scrutiny is a sufficient one, they will become related to the present inquiry as lemmas and will cease to be postulates.

Postulates.

1st belief.—That my present thoughts exist.

Definition 1.—The term thought is taken in its widest extension. It is to be understood as embracing *everything* of which we are conscious.

2nd belief.—That my remembered thoughts have existed.

3rd belief.—That time relations exist.

Definition 2.—I, my mind, or the ego, is that varying group of associated and interacting thoughts which includes my present thoughts; and included my remembered thoughts, with others that are but partly remembered and some that are now forgotten.

4th belief.—That minds more or less resembling mine exist in my fellow men and in some other animals.

Observation.—By intercourse between my mind and the minds of my fellow men I learn that they experience sensations which are closely related to those that present themselves as a part of my mind. Whence, and from much other evidence, I infer—

5th belief.—That my sensations and theirs have their source in some existing thing or things which are not any part of my own present or past thoughts.

Bishop Berkeley entertained this belief as emphatically as other men. He held that sensations are produced in human minds by acts of will of a "governing spirit."

6th supposition.—Another belief is freely made use of in this essay, viz., that my organs of sense and parts of my brain are instrumental in introducing sensations into my group of thoughts.

This belief is, however, not a necessary postulate of the investigation. The argument can be stated in language which does not include it; but the supposition is true and therefore unobjectionable, and it is introduced thus early, because without it we should be obliged to use unfamiliar forms of expression which would be less perspicuous.

With the same end in view, viz., to attain lucidity, the language of causation is freely used throughout the essay, but will be found not to involve anything beyond what is included in the fifth of our postulates until the 22nd paragraph is reached.

CAUTION.—It should be distinctly borne in mind that it is not legitimate to infer that causes resemble their effects. As a general rule the *presumption* is very strongly the other way. When men are forming ontological judgments, they often tacitly assume that causes are like their effects, or suppose that the relations between the causes are of the same kind as those which they find prevailing among the effects. We should be carefully on our guard against these errors.

The importance of the investigation lies in this, that it enables us to correct other ontological beliefs which are usually entertained with

the five enumerated above, but which are found to be no longer tenable along with them; especially the beliefs that space or space relations have an autic existence, and that the existing things which are the sources of our sensations are situated in space. The dismissing of these errors and the substituting of correct beliefs for them, are an important correction of those ontological beliefs which are commonly accepted by scientific men, and place the inquirer in a much better position for taking his next step in the study of ontology.

PART II. ABSTRACT OF THE ESSAY.

1. Man is concerned with what may be provisionally regarded as two kinds of auta (real existences), viz., *egoistic auta* and *sense-compelling auta*.

2. Definition.—By *egoistic auta* are to be understood the thoughts that are my own mind, and those which are the minds of my fellow men and of other animals. *See Postulates 1, 2, 4, and Definitions 1 and 2.*

3. Definition.—By *sense-compelling auta* are to be understood the sources of my perceptions, which by postulate 5 are auta which are *not* within the little group of auta constituting my mind.

4. Definition.—The **Universe** is the totality of auta. It accordingly includes both the egoistic and the sense-compelling auta.

5. Sense-compelling auta communicate with us—human minds—by signalling to us along certain channels of telegraphic communication which consist of our senses and the synergos. *See the 6th supposition, and the next paragraph: see also Diagram 1.*

6. Let us use the term *onto-brain* to designate the whole of that real existence—an auto or rather a group of associated auta—which, as the result of one branch of its activity, can produce in us the various perceptions that when built together constitute the phenomenal object usually called the brain. This *onto-brain* is more than the mind. What more there is in it may be appropriately called the *synergos*—*συνεργός*, a fellow-labourer—because (along with other activities) it renders help to the mind. Accordingly the *onto-brain* consists of—

1. The Mind.
2. The Synergos.

Similarly if the rest of the *onto-body* of a man be called the

doulos (*δοῦλος*, a servant), the entire of the onto-man—the really existing man—in the wider* significance of the word man, consists of—

1. His mind } Making together his onto-
2. The synergos } brain.
3. The doulos, making up the rest of his onto-body.

His organs of sense, i.e., the onto-organs, are a part of the doulos. In illustration of the use of the prefix onto, see Diagram 2. The phenomenal object, which we are accustomed also to call a man, is not any part of the onto-man, the really existing man. It is merely a **syntheton**—*σύνθετον*, the structure resulting from synthesis—of certain effects which the onto-man can, through organs of sense, produce within the man's own mind or in the minds of his fellow men.

7. Several of the items of the description given in the last two paragraphs rest on supposition 6, p. 120. These details are not essential to the argument of the essay, but they make the argument more easily stated and more easily understood.

8. The **tekmeria** (*τεκμήρια*, a sign which is at the same time a proof of something), i.e., the signals or messages (§ 5) *in their final form* as they reach the minds of modern men, are more than sensations; they are perceptions, (definition) by which term we are to understand *sensations which appear to us to have space relations to one another*. They are entitled to be called tekmeria, inasmuch as they are proofs to me that other operations are going on in the Universe beside those going on in my own mind. See Diagram 1.

9. The messages undergo profound change in their transit from the sense-compelling auto to me, so that the tekmerion, the form in which the message reaches me, is utterly unlike what the originating auto sent abroad. *A fortiori* there is no trace of ground for supposing it like that auto, or that a structure made by compacting tekmeria together is like that auto. See the warning on p. 120.

10. It is possible to trace with considerable probability, how, by reason of what we inherit from our ancestors, the tekmeria have come in modern human minds to be perceptions (see definition in § 8) and not mere sensations.

* In the narrower significance of the word, a man is his mind only.

11. Definition.—An object is a *supposed non-egoistic existence*. The supposition, being a thought in the mind, is an auto—one of the egoistic class of auta; but the object of that thought has not necessarily an autic existence. It is, in fact, an hypotheton.

12. Accordingly **objective existence** is to be carefully distinguished from **autic existence**. Objective existence is hypothetical, and is usually not autic (or real) existence. It will be autic only under the very exceptional circumstance that the hypothesis made has been the true theory of existence.

13. The **phenomenal objects** which seem to us to be situated about in space are in reality syntheta of perceptions, *i.e.*, of the tekmeria or messages sent to us by sense-compelling auta. Of the perceptions which are built together to form a phenomenal object, those only exist at any one time which we experience at that time, and even they have an egoistic, not the supposed non-egoistic existence; the rest are potential, that is, they are not then in existence, but will come into egoistic existence if certain conditions are fulfilled.

All these perceptions, whenever they arise, are effects produced *within us* by the sense-compelling part of the Universe. The supposition that the syntheton formed by putting them together has a non-egoistic existence is only an hypothesis, most useful to us and therefore legitimate as an hypothesis, but not to be mistaken for a part of the true theory of existence.

14. Definition.—**Nature** is the totality of phenomenal objects.

15. Definition.—The **phenomenon** is man's thought about the phenomenal object. Accordingly it is an auto; it exists, but only while we are thinking about the phenomenal object. It is transitory, imperfect, and fluctuating, whereas—

16. The phenomenal object, though only an hypotheton, is perfectly definite and has in it nothing unstable or arbitrary, including, *as it must*, all the tekmeria which a certain part of the sense-compelling Universe does or can produce in human minds through human senses.

17. In the sense of being derived by this definite process from what is in actual existence in the sense-compelling part of the Universe, the phenomenal object is fully entitled to be called **real**, as opposed to illusory or imaginary.

18. We may liken the sense-compelling part of the Universe to a great machine in motion, and the perceptions it produces within the human mind to shadows cast by it. The laws of the movements of the machine are the real laws of the Universe; the laws of Nature are but the laws of the changes which the shadows in consequence undergo.

19. (a) Natural Objects } Have only an objective existence,
 (b) Space relations } not an auto existence (see § 12
 (c) Motions } above).

They are, however, *real* in the sense in which that term is used in § 17.

20. The exigencies of scientific inquiry have led to the conception of parts of phenomenal objects, and of motions, which are smaller than any that are built up of perceptions that man's senses can convey to him; so that the phenomenal object of the scientific man consists of—

1. Actual perceptions;
2. Potential perceptions; and of
3. Certain other conceived perceptions.

21. Furthermore, in substitution for the phenomenal objects of nature, scientific investigation has led inquirers to conceive space as peopled with objects that consist exclusively of motions. These may be called **Diacrinomenal objects** to distinguish them from the phenomenal objects for which they are substituted; and the totality of them may be called **Diacrinomenal Nature**. (See Diagram 1.)

22. It is obvious that causation, *when that term is understood to include efficiency in the cause*, can only prevail among auta. It has no place in the study of phenomenal or of diacrinomenal nature, i.e., in the domain of physical science.

23. The assumption that material "substances" and that forces exist, and that the former occupy positions in space, the same as or near to those which the phenomenal objects appear to occupy, is the commonly received noümenal hypothesis.

Definition.—By a noümenal hypothesis is to be understood an hypothesis as to what the auta of the sense-compelling Universe are.

This view of existence was instilled into all of us in our childhood and is embedded in the language we must all use.

24. However erroneous (see § 9, and the warning given on p. 120), this crude noümenal hypothesis may be, each of the two parts of which it consists appears to have a partial basis in truth. We are here concerned with the second. The conception of force as commonly entertained by scientific men contains this important element of truth, that a true causal connection does exist which determines the simultaneous events that are observed to take place in nature—the changes that occur among the shadows cast by the great machine.

25. This causal connection is represented in Diagram 3. If true

causation operates between two auta A, and B, when they stand in a suitable relation, R, to one another, they and their relation undergo change, and an event will thus have taken place in the Autic Universe. Should the auta that are concerned be sense-compelling auta, the effects they can produce in human minds, the α 's and β 's of the diagram, will be different after the change from what they were before; and the syntheta that these effects will form when compacted together, the phenomenal objects, will be different before the event and after it, i.e., a , b , and r of the diagram will undergo change and become a' , b' , and r' . Thus the true causal connection between the antecedent state of nature, and that which follows it, passes as it were, over the bridge of the diagram. Accordingly, a force, which is usually regarded as a cause of dynamical change in nature, is in reality of the nature of a symbol, a symbol which stands* for the indirect causal connection described above. The great machine has moved, and the shadows which it casts have undergone change. But the cause of this change is to be sought not in any power which the shadows have to operate on one another, but in whatever has brought about the motion of the machine. Physical causes are but causes conceived of as operating between the shadows, and are but symbols in their relation to the true causes that have operated between the auta of the sense-compelling Universe. They are nevertheless entitled to be pronounced *real* (as being based on reality and a legitimate supplement of the phenomenal hypotheton) whenever a real causal connection, such as is represented in the diagram, actually exists.

26. The commonly received noümenal hypothesis that material substances exist and have space relations to one another is discredited by the foregoing investigation. The author has elsewhere put forward in substitution for it the noümenal hypothesis that all auta are thoughts, sense-compelling auta as well as egoistic. The evidence, however, for this hypothesis is not discussed in the essay of which this is an abstract, since neither the argument nor the conclusions of the essay depend on it.

27. The main conclusions of the present essay are presented in a diagrammatic form in the first of the following diagrams:—

* In the science of dynamics it is quite immaterial what it stands for. What we are concerned with in that science is merely the direction and amount of *the phenomenal part of the effect of the cause of which it is the symbol*.

DIAGRAM I.
Illustrating the Relation of Hypotheta to Auta.

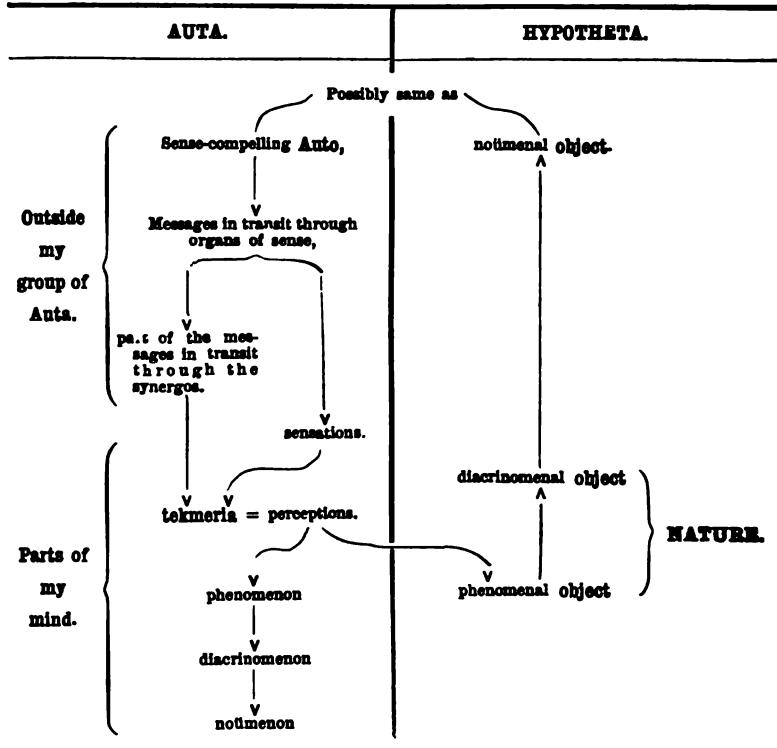
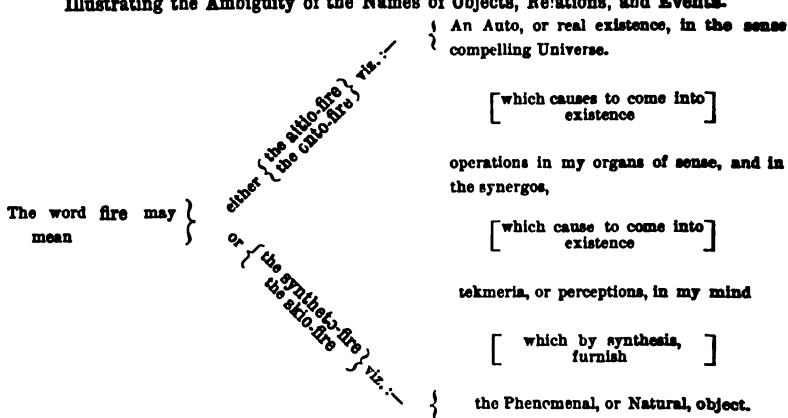


DIAGRAM II.
Illustrating the Ambiguity of the Names of Objects, Relations, and Events.

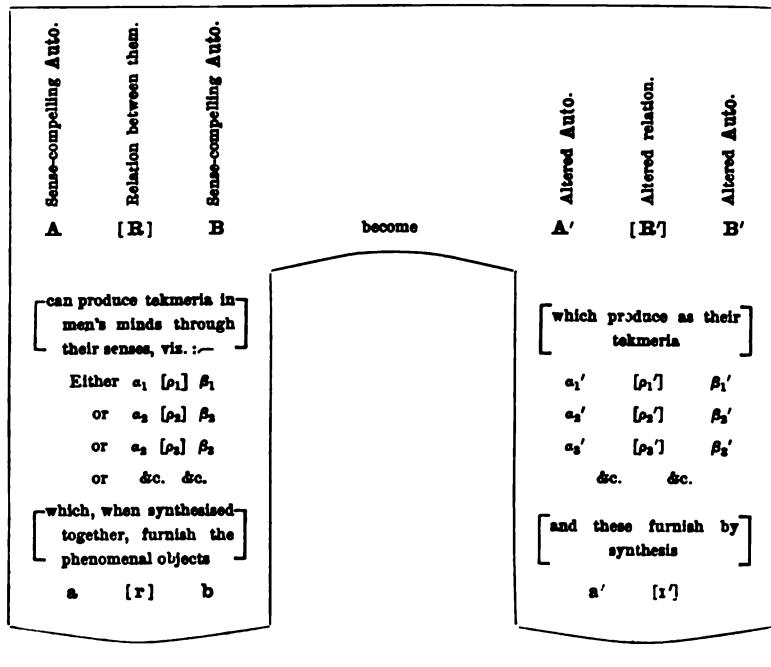


The word fire in its two meanings may appropriately be called the aitio-fire and the syntheto-fire, in their relation to our perceptions: the one being the aition or cause of our perceptions of the fire, the other the syntheton or structure formed by building these perceptions together.

Or, they may be called the onto-fire and the skio-fire in their relation to one another: the one being the reality, the other a shadow cast by it in a particular way.

DIAGRAM III.

Illustrating the causal connection between Man's perception of the Antecedents and his perception of the Consequents when "a change is observed to take place in Nature."

II.—*By Professor ALEXANDER BAIN, LL.D., Vice-President.*

UNDER the title of our Symposium Dr. Stoney made choice of the Ontology of Force, and he has run a parallel between it and the Ontology of Existence, which is not a usual treatment. Force has never been a leading term in the older Ontology. It seems to me that "Cause" would be a preferable designation for what is aimed at.

Without stopping to criticise the elaborate nomenclature invented by the author to set out his ontological scheme, which is a slightly modified realism, I will advert at once to its weak points, which are simply the weaknesses of all ontologies.

Science, according to the author, reveals the order of nature, but not causation. This means to say that scientific experience is not complete knowledge; it leaves something to be desired, in the absence of which our knowledge is imperfect. Now it seems to me that the character of this imperfection should be more precisely defined, as well as the method of surmounting it. In my view, when we are

made perfectly sure of the order of nature, we have everything that we can possibly attain to; all beyond it is fiction and fancy.

The assumed belief of mankind that every effect had a cause is open to various remarks:—

(1.) The unscientific mind does not know its own meaning when it launches this assertion.

(2.) Supposing the common belief to amount to a valid authentication of the proposition, whatever it may mean, the doctrine of the Uniformity of Nature is comprehensive enough to take it in, as we could easily show, that doctrine being kept free of all ontological assumptions.

(3.) The author's language in reference to cause and effect contains a fallacy of explanation. He says, "Why one body pushes another out of its way, nobody knows." Again, no reason can be assigned for the acceleration of falling bodies. Experience shows that they do accelerate, and that is all, until we leave the author's *shio-motion* and ascend to *auto-motion*, which is the sphere of causes.

I entirely question the alleged defect of explanation. The scientific explanation of the world has no other meaning than the utmost attainable stretch of generalization. Anything else is a perfectly useless and fictitious entity; it is something never yet presented to the mind; and if conjured out of the domain of non-entity, it would only be a burden or a nuisance. As it is, we know causes in the only form that knowledge can take shape in the human understanding. Only the cravings of a morbid fancy could make mystery out of Gravity, or the Multiplication Table. The "Essay" of Locke was the work that initiated the modern mind in the true theory of explanation, which theory Dr. Stoney has, in my opinion, erred in misapprehending.

I have fully stated my view of the nature of Force, as the synonym of Cause, and as the basis of the scientific explanation of the world (see INDUCTIVE LOGIC—*Cause as Conservation of Force*); and I do not here enter upon it, farther than to say that such is the general scope of the doctrine. Force is matter in motion: that is its definition. Its law is the Conservation, Persistence, or Equivalence of Force—both molar and molecular. There are apparent exceptions to this form of stating the principle, which demand a special mode of expression: that is to say—Energy of Position in a state of rest: and waste or Dissipation of Energy, with no means of restoration. We have here Causation as embodied in the visible and tangible world, and have no necessity to go behind phenomena, in order to give a sufficient account of it. We can add nothing to what research has led up to on this cardinal doctrine; its applications may be extended: but we shall never get behind the veil, because, in *int of fact*, there is nothing for us to discover if we did.

III.—*By PROFESSOR W. R. DUNSTAN.*

[Abstract.]

HAVING read the two preceding papers, the writer decided first to give an account of the meaning which is attached to the word Force in physical science, and then to show how this meaning may be brought into harmony with that larger view of Force which arises from philosophical analysis.

The principal definitions which have been accorded to Force by well-known physicists during the last century, were discussed. Accepting as conclusive, Hume's disproof of the scholastic notion of cause, Force defined as "cause of motion" was rejected in those instances where cause implies real agency, *e.g.*, in the account given by Sir John Herschel. The writer agreed with Dr. Johnstone Stoney in holding that "cause" in any but the Humian sense has no place within the domain of physical science.

The tendency of certain modern physicists to avoid a consideration of the nature of Force, and to define it by its effects, was then commented on (*cf.* the definitions given by Clifford and Tait). Those definitions were next noticed which aim at giving an exact account of the phenomena concerned in physical transactions where Force is said to "operate." Foremost in this class must be placed the famous definitions of Sir Isaac Newton which, in the opinion of the writer, give no sanction to the conception of Force as cause. The word *causa* is not used by Newton in his definitions (*Introduction to the Principia, Definitiones et Axiomiata sive Leges Motus*), although in translating them into English the word *actio* is often rendered as "cause." According to Newton, Force is an *actio* not a *causa*, and it would seem that he takes particular pains to avoid the use of the latter word in his definitions, since cause would at that time have inevitably carried with it a scholastic signification. "Vis impressa est actio in corpus exercita ad mutandum ejus statum vel quiescendi vel movendi uniformiter in directum" (*Principia, Definitio IV.*). The word *causa* appears to be employed by Newton only in descriptions where it is unnecessary to define it, and where, for the lack of a better term, it may be employed as it often is now, for descriptive purposes.

Having observed that Dynamics retain only the definition of that variety of Force which was called by Newton *vis impressa*, it was shown that Professors Clerk Maxwell and Rankine, among later physicists, strictly following Newton, define Force as an "action"

and not as a "cause." The analysis of a dynamical transaction given by Clerk Maxwell (*Matter and Motion*) was especially commented upon.

The latter part of the paper was an attempt to frame a wider and philosophical definition of Force, employing solely the analytic method and thus steering clear of any hypothesis about the nature of the material world.

In every conception we form of matter there is involved the notion of space occupation and resistance, that is to say, the essential continuity of matter. We find it impossible to separate in thought this idea from that of mass, or quantity of matter. This idea of the space occupation of matter appears to constitute the most general sense of the word Force where it implies a distinguishable but inseparable element in our conception of matter. It is the intrinsic and innate Force, and would seem to correspond with Newton's *vis insita*, or with his *vis inertiae* in those cases in which we are dealing with separate pieces of matter. This idea of Force has no necessary place in physical science; it is an aspect of matter brought to light by philosophical analysis.

Physical science, through dynamics, is concerned with that action between the two portions of matter which Newton called *vis impressa*. We are here dealing with the action and re-action between two pieces of matter, which is manifested by an increase or decrease of velocity, or by a change of position in space. We find no evidence of the existence of any distinct entity to which the name Force might be applied. All that we know is that an alteration has taken place in the space-position of one body owing to the position of another body outside it. We may confine our attention to one side of this dynamical transaction, and then the bodies appear to stand in that relation commonly called "cause and effect," but cause here means not an entity—Force, but the relative position of the other piece of matter.

The assertion that we have an intuition of Force, that we are directly conscious of it, is true only in the sense that we are always aware of that inseparable aspect of matter which Newton called *vis insita*. If it is intended to imply that the so-called "feeling of effort," which accompanies the muscular action by which we set matter in motion, is also involved in the action of one piece of matter on another, then this view necessitates the hypostazing of the "feeling of effort," and a special theory about the nature of the material world, such, for example as the monistic hypothesis which has been advocated by Dr. Johnstone Stoney. If, as he supposes, all *auta*, external as well as internal, are of the nature of thought, then Physical Force appears in a different light. To discuss this theory

would be to pass far beyond the limits imposed by the title of this Symposium. It may, however, be remarked that in identifying external and internal *aucta* the theory leaves unexplained the fundamental and important datum with which we start, that external *aucta* are, as a matter of fact, profoundly different from internal *aucta*.

The writer found himself in agreement with much that Professor Bain has said in his paper. It would seem, however, that the definition of Force which is there given requires further amplification, for as it stands it appears to overlook the scientific distinction between Force and Energy.

APPENDIX.

**REPORT OF THE EXECUTIVE COMMITTEE FOR THE
TENTH SESSION, 1888-1889.**

Presented at the Annual Meeting, July 1st, 1889.

The Committee have again the pleasure of being able to report a prosperous condition of the Society. The number of ordinary members has risen to 54, as against 48 at the close of last Session; not counting Professor J. M'K. Cattell, whose name has been transferred to the list of corresponding, from that of ordinary, members, in consequence of his becoming permanently resident in America. We have, however, to lament the loss of one valued member by death, the Rev. W. B. Philpot, and of six others by resignation or change of abode. Professor Bain has been elected a Vice-President in place of the Rev. E. P. Scrymgour, who has resigned.

The papers and discussions of the Session now closing have, in the opinion of the Committee, fully maintained their interest. And we have great pleasure in noting, that the average attendance of members has risen to 17, as against 12 in last Session.

Since our last Report, the first published Number of the Society's Proceedings has appeared. Though the decision to publish came too late to secure some papers which might otherwise have appeared in it, we think there is no reason to regret that a beginning has been made,

Our next Number will probably reach a somewhat greater bulk.

With regard to the programme of work for next Session, the Committee would again recommend that three evenings should be devoted to Symposia, as in the present Session. The following topics for Symposia have occurred to them :—

1. Is there Evidence of Design in Nature ?
2. Is the Distinction of Feeling, Cognition, and Conation valid as an Ultimate Distinction of the Mental Functions ?
3. The Relation of the Fine Arts to one another.

The following topics may be suggested for papers in Philosophy :

1. Is a Genetic Classification of the Emotions possible ?
2. Is Association of Ideas possible without Volition ?

3. What is the True Definition of Causality ?
4. Is "Ockam's Razor,"—*Frustra fit per plura quod fieri potest per pauciora*,—an Ultimate Principle in Logic ?
5. The Distinction between Society and the State ?
6. The Origin of the Idea of Space ?

The following in the History of Philosophy :

1. Scotus Erigena.—The *De Divisione Natureæ*.
2. Roger Bacon.—The *Opus Majus* and *Opera Inedita*, Vol. I., ed. by Brewer, in the "Master of the Rolls Series."
3. Lord Herbert of Cherbury.—The *De Veritate* and the *De Religione Gentilium* and *Life*, written by himself.

The following books may also be suggested as subjects for papers and discussions:

Schopenhauer.—*The Fourfold Root*, &c., and *Will in Nature*, or either. Engl. Transl. in Bohn's Philos. Library.

Du Prel.—*The Philosophy of Mysticism*, in Mr. C. C. Massey's translation.

A. J. Balfour's *Defence of Philosophic Doubt*.

T. Case's *Physical Realism*.

Mercier's *The Nervous System and the Mind*.

H. Münsterberg.—*Die Willenshandlung*.
" *Der Ursprung der Sittlichkeit*.

Cardinal Newman's *Grammar of Assent*.

ARISTOTELIAN SOCIETY.

FINANCIAL STATEMENT—10TH SESSION, 1888-89.

<i>Receipts.</i>	<i>Expenditure.</i>
Balance brought forward from 9th Session 49 5 11	Rent of Rooms, 22, Albemarle Street 16 16 0
Subscriptions—1887-8 £1 1 0	Printing—Meers, Harrison and Sons—Proceedings 27 2 8
1888-9 53 11 0	List of Meetings, &c. 1 19 9
—————	—————
54 12 0	Type Writing 2 8 0
	Advertisements 2 1 0
	Postage and Stationery 4 10 2
	Gratuity, &c. 1 3 0
—————	—————
	Balance in hand.. 56 0 2
	—————
£103 17 11	£103 17 11

E. H. RHODES.
A. SENIER.

July 1st, 1887.

LIST OF PAPERS READ BEFORE THE SOCIETY DURING
THE TENTH SESSION, 1888-89.

1888.

- Nov. 5.—The President, "Common Sense Philosophies" (p. 5).
- „ 19.—S. Alexander, "The Growth and Progress of Moral Ideals." This paper is now incorporated in "Moral Order and Progress." Trübner, 1888.
- Dec. 3.—Symposium, "Can the Nature of a Thing be learnt from its History alone?" The President, Messrs. F. C. Conybeare and G. F. Stout.
- „ 17.—G. J. Romanes, LL.D., F.R.S., "The Doctrine of Moral Responsibility." This paper will form part of the forthcoming volume of "Mental Evolution in Man."

1889.

- Jan. 14.—M. H. Dziewicki, "The Stand-Point and First Conclusions of Scholastic Philosophy" (p. 28).
- „ 28.—Prof. A. Bain, LL.D., "The Empiricist Position." This paper is published in "Mind," for July, 1889.
- Feb. 11.—Rev. J. Lightfoot, D.Sc., "The Philosophy of Revelation" (p. 40).
- „ 25.—Bernard Hollander, "Do Separate Psychological Functions require Separate Physiological Organs" (p. 47).
- Mar. 11.—Symposium, "What takes place in Voluntary Action." Messrs. B. Bosanquet, P. Daphne, LL.B., J. S. Mann (p. 61).
- „ 12.—Bernard Bosanquet, "The Part Played by Ästhetic in the Growth of Modern Philosophy" (p. 77).
- April 8.—F. C. Conybeare, "Proclus and the Close of Greek Philosophy" (p. 97).
- „ 29.—Rev. Canon Aubrey L. Moore, "Some Curious Parallels between Greek and Chinese Thought."
- May 13.—A. M. Ogilvie, "The Psychology of Sport and Play" (p. 110).
- „ 27.—G. F. Stout, "The Development of the Distinction between the Physical and the Mental, considered from the Psychological Point of View." This paper will be published in "Mind."
- June 17.—Symposium, "The Nature of Force." Prof. A. Bain, LL.D., Dr. Johnstone Stoney, F.R.S., and Prof. Dunstan (p. 119).

ARRANGEMENTS FOR THE ELEVENTH SESSION, 1889-90.

1889.

Nov. 4.—President's Address—“What is Logic?”
 „ 18.—S. Alexander, “Scepticism.”
 Dec. 2.—B. Bosanquet, “The *Aesthetic Theory of Ugliness*. ”
 „ 16.—Symposium, “Is there Evidence of Design in Nature?”
 S. Alexander, Rev. Dr. Gildea, Miss Naden, and Prof.
 G. J. Romanes, F.R.S.

1890.

Jan. 6.—R. E. Mitchenson, “Practical Certainty the Highest Certainty.”
 „ 20.—Miss Naden, “Rational and Empiricist Ethics.”
 Feb. 3.—D. G. Ritchie, “The Conception of Sovereignty.”
 „ 17.—J. S. Mann, “The Distinction between Society and the State.”
 March 3.—G. F. Stout, “The Psychological Development of the Conceptions of Causality and Substance.”
 „ 17.—Symposium, “The Relation of the Fine Arts to one another.” Messrs. Bosanquet, E. W. Cook, and D. G. Ritchie.
 „ 31.—H. W. Blunt, “Lord Herbert of Cherbury.”
 April 14.—Rev. P. N. Waggett, “Beauty.”
 „ 28.—P. Daphne, “Newman's Grammar of Assent.”
 May 12.—Prof. J. Brough, “The Philosophical Conception of Property.”
 June 2.—Symposium, “Is the Distinction of Feeling, Cognition, and Conation valid as an ultimate Distinction of the Mental Functions?” Professor Bain, Professor Brough, Messrs. Mitchenson and Stout.
 „ 16.—Annual Meeting for Business.

NOTE.—The meetings of the Society are held at 22, Albemarle Street, London, W., on the above mentioned Monday evenings at 8 p.m.

RULES OF THE SOCIETY.

NAME.

I.—This Society shall be called “THE ARISTOTELIAN SOCIETY FOR THE SYSTEMATIC STUDY OF PHILOSOPHY,” or, for a short title, “THE ARISTOTELIAN SOCIETY.”

OBJECTS.

II.—The object of this Society shall be the systematic study of Philosophy; 1st, as to its historic development; 2nd, as to its methods and problems.

CONSTITUTION.

III.—This Society shall consist of a President, Vice-Presidents, an Editor, a Secretary (who shall be Treasurer), and Members. The Officers shall constitute an Executive Committee. Every Ex-President shall be a Vice-President.

SUBSCRIPTION.

IV.—The annual subscription shall be one guinea, due at the first meeting in each session.

ADMISSION OF MEMBERS.

V.—Any person desirous of becoming a member of the ARISTOTELIAN SOCIETY shall apply to the Secretary or other officer of the Society, who shall lay the application before the Executive Committee, and the Executive Committee, if they think fit, shall nominate the candidate for membership at an ordinary meeting of the Society. At the next ordinary meeting after such nomination a ballot shall be taken, when two-thirds of the votes cast shall be required for election.

CORRESPONDING MEMBERS.

VI.—Foreigners may be elected as corresponding members of the Society. They shall be nominated by the Executive Committee, and notice having been given at one ordinary meeting, their nomination shall be voted upon at the next meeting, when two-thirds of the votes cast shall be required for their election. Corresponding members shall not be liable to the annual subscription, and shall not vote.

ELECTION OF OFFICERS.

VII.—The President, three Vice-Presidents, Editor, and Secretary, shall be elected by ballot at the last meeting in each session. Should a vacancy occur at any other time, the Society shall ballot at the earliest meeting to fill such vacancy, notice having been given to all the members.

SESSIONS AND MEETINGS.

VIII.—The ordinary meetings of the Society shall be fortnightly, on Monday evenings, unless otherwise ordered by the Society. They shall commence in October or November, and end in June or July of each year. Such a course shall constitute a session. Special Meetings may be ordered by resolution of the Society or shall be called by the President whenever requested in writing by four or more members.

BUSINESS OF SESSIONS.

IX.—Before the close of each year the Society shall arrange a programme for the study of Philosophy in the two departments mentioned in Rule II. for the following session. At the last meeting in each session the Executive Committee shall report and the Secretary shall make a financial statement, and present his accounts audited by two members appointed by the Society at a previous meeting.

BUSINESS OF MEETINGS.

X.—Except at the first meeting in each year, when the President or a Vice-President shall deliver an address, the study of Philosophy in both departments shall be pursued by means of discussion, so that every member may take an active part in the work of the Society.

Each member shall, if possible, contribute a paper or otherwise initiate a discussion at least once in each session.

PROCEEDINGS.

XI.—The Proceedings of the Society in each session shall be published. The Executive Committee shall form the Publishing Committee.

BUSINESS RESOLUTIONS.

XII.—No resolution affecting the general conduct of the Society and not already provided for by Rule XV. shall be put unless notice has been given and the resolution read at the previous meeting.

QUORUM.

XIII.—No proceedings shall take place unless a quorum of five members be present.

VISITORS.

XIV.—Visitors may be introduced to the meetings by members.

AMENDMENTS.

XV.—Notices to amend these rules shall be in writing and must be signed by two members. Amendments must be announced at an ordinary meeting, and notice having been given to all the members, they shall be voted upon at the next ordinary meeting when they shall not be carried unless two-thirds of the votes cast are in their favour.

LIST OF OFFICERS AND MEMBERS.
FOR THE ELEVENTH SESSION, 1889-90.

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SHADWORTH H. HODGSON, M.A., LL.D.

VICE-PRESIDENTS.

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 PROF. A BAIN, LL.D.
 BERNARD BOSANQUET, M.A.

EDITOR OF THE "PROCEEDINGS."

PROF. WYNDHAM R. DUNSTAN, M.A.

HONORARY SECRETARY.

H. WILDON CARR, 22, Albemarle Street, W.

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DAVIDSON, THOMAS, Orange, New Jersey, United States	..	Nov. 12th, 1883.
HARRIS, WILLIAM T., LL.D., Concord, Mass., United States	..	Dec. 19th, 1881.
JAMES, Prof. WILLIAM, M.D., Cambridge, Mass., United States.	..	Feb. 5th, 1883.

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		Date of Election.
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SENIER, A., M.D., Thornfield, Harold Road, Upper Norwood, S.E.	<i>April 19th, 1880.</i>
SMITH, ARTHUR M., Junior Carlton Club, S.W.	Nov. 7th, 1887.
STOUT, G. F., M.A., St. John's College, Cambridge	Nov. 21st, 1887.
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PRESIDENTIAL ADDRESS.—WHAT IS LOGIC ?

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I.

It is a thorny subject to which I have the honour of inviting your attention this evening ; nevertheless, with the assistance which your kind attention will afford, I hope to succeed in driving a path or two through the thicket, of such breadth and in such directions as will render the general nature, principles, and outlines of the subject sufficiently clear and intelligible. I call the subject a thorny one, because in no other department or province of philosophy have the thorns so rankly sprung up and choked the good seed as in this province of Logic ; to an extent, indeed, which threatens to obliterate its connection with philosophy altogether, and so win it back into the howling and unchartered wilderness of quasi-scientific babble. A pretty predicament truly for Logic, in which, if in anything, must be found, what cannot but exist, the essential bond of kinship uniting all kinds and departments of knowledge.

By the thorns I mean, as you will readily surmise, the crop sown by the old hereditary enemy, antithesis, and counterfeit of philosophy, Empiricism ; and that, in this case as in others, under both its main forms, English on the one hand, German or Hegelian on the other. And it is high time that we should have this subject of Logic brought before us in its length and breadth. Nine years of practice, counting from the foundation of our Society, a Society called by the name of the first great systematiser of Logic, may well be followed, in the tenth, by a direct effort to bring the theory of Logic into distinct consciousness. We cannot be expected to acquiesce without a struggle in the metamorphosis of the Analytics of Aristotle into the Empirics of the nineteenth century. Only I fear I cannot promise you that our tenth year will see the fall of this our Troy, the empiricising views of Logic which I have signalled.

Logic has had a singular history. It so thrived and prospered on its Aristotelian basis, after the decay of Neo-Platonism and the establishment of Christian Theology, and before the advent of the positive sciences, that it seemed actually to have reduced the *omne scibile* under the dominion of its formulas, and thereby almost lost sight of its own nature and principles. It seemed to imagine that its task as an Organon or instrument of thought was virtually done, and that the further discovery of Truth could consist solely in the re-handling and re-arrangement of already acquired facts, by means of its dialectical disputation. Such goodly proportions did it attain in the later days of the Scholastic period, so portly and so dignified was its figure, that, if I may be pardoned for the simile, it grew unable even to see its knees, much less use them in advancing to a goal. It became, in fact, a confirmed invalid, confined to its bed by plethora, a sick man, whose name and inheritance became, on the advent of positive science at the era of the Renaissance, a subject of much interesting speculation. Not that its expectant heirs could afford to let it die. The very existence of the inheritance depended on the name, and the name on the life of the owner. What then was to be done? There was plainly but one course to take,—to personate the owner, adopt his name, and give out that he was convalescent. This was done, and Empirical Logic came into being as the result.

Empirical Logic, as I have just noticed, has two main forms, English and Hegelian. Let us see briefly, in the first place, in what sense it is that these are to be called empirical as distinguished from analytical. This will lead us in the next place to see, how and why it is, that Logic in the true sense is necessarily analytical, and what is implied in its being so.

Now Logic becomes empiricism when it is confounded with reasoning as a whole, that is to say, with the whole action which aims at truth, and not distinguished as containing only the law or laws of that action. This confusion is common to both the English and Hegelian empiricism. Where they differ is, that the English school takes the aim of reasoning to be to discover truth or the laws of nature; while the Hegelian school takes its aim to be to create and be truth, or laws of nature.

Hence *Induction* is the watchword of the English school, induction being the great method of discovering matters of fact, whether particular or general, by the subsidiary means of observation and experiment. Its error, as I think I shall make plain farther on, lies in including too much in the data of what it conceives to be Logic. It takes objects already compared as its data; whereas the act of comparing, by which the supposed data of Inductive Logic are partly

formed, and which is therefore included in every one of those data, is itself a logical act or act of thought, but one which is thus left wholly out of the reckoning. English empiricism, therefore, excludes the specific act of thinking from its conception of Logic, by making what it calls Inductive Logic begin with data, in which that act is implicitly included and taken for granted; with this singular result, that it thereby reduces the so-called Inductive Logic to the rank of a register, or a system of rules for registering, the relations of already compared facts to one another.

One of the forms taken by English empiricism is that of mathematicising Logic. This is a mode or case of the fallacy just noted, of taking objects already compared as the data of Logic. Numbers are objects already compared, as when we say $2 + 2 = 4$. But the act of forming numbers is itself a logical act, exercised in matter specially distinguished for a special purpose, namely, the act of distinguishing the abstract time or times of anything occurring to consciousness. It is a logical act because, as we shall see presently, it depends on the Postulates of Logic, the Laws of Identity, Contradiction, and Excluded Middle. And this act is included in, and required by, the comparing of numbers with one another, which is numeration or counting in the concrete, that is, mathematical dealing with numbers.

Nor is this true of number only. All *quanta*, spatial or geometrical as well as numerical, are objects already compared. The perception of equality between any two *quanta* supposes these already given as *quanta*, that is, as objects already compared with others and distinguished as *quanta*. But this previous act of comparing is a logical act, moving by the Postulates of Logic. It is, then, logically or analytically speaking, prior to—at any rate it is a pre-requisite of—the perception of equality between *quanta*. Equality, therefore, is plainly not what is expressed by logical judgments in their logical character. You will know the mathematiciser of Logic by his adoption of the mathematical sign of equality, $=$, to indicate the copula, as in $A = B$. In brief, mathematics generally is a special mode of thought, and pre-supposes the laws by which all thought moves, simply in its character of thinking.

While English empiricism, then, is wrong in robbing Logic to enrich its pre-suppositions, thus reducing it to the rank of a method, sometimes of registering combined observations, sometimes of calculating combinations of abstract *quanta*, Hegelian empiricism merits its empirical character by an opposite error, that of allowing Logic no pre-suppositions at all. Purely perceptual data, as I hope to make evident presently, are in reality its necessary pre-supposition. These, however, the Hegelian school take up and, as it were, absorb

in acts of logical thought, as necessary features of its own nature, but belonging to it as products not as pre-suppositions of that nature. They empiricise Logic, first, by making it remove its neighbour's landmark, and include in itself what really belongs not to thought but to perception; and then by exhibiting the union of the two properties so constituted as at once the *minimum* of experience, and the creation, as process and product at once, of what they call real and concrete thought. Thus, the movement of thought being logical, the laws of nature, which are its process or product, appear in consequence as laws of a Creative Dialectic. "The Concept," says Hegel, "is that which determines itself, being absolutely self-identical Negativity."* Empiricism of this kind is diametrically opposite to the empiricism of the English school. It is not like that, the empiricism of a rough practical common sense, proud of disregarding what it considers useless speculative refinements, but rather the empiricism of some subtil thought-builder, who takes speculative refinements to be the aim and object of philosophy.

If it be said that, after all, this system of subtleties is as good as true, being at any rate irrefutable, the answer is that it is irrefutable only so long as the assumption on which it is founded remains undetected. Now the undistinguishable union of perception with thought appears as the *minimum* of experience only when we take experience to consist of a series of steps in time-sequence, as we do, for instance, in passing from subject to predicate in a judgment, whereby we *ex ipso* take its terms, whether abstract or concrete, as empirical, that is, unanalysed wholes or units, refusing to enquire by analysis into the composition of the terms taken severally. We thus exclude from consideration all relations between the terms but those of greater or less generality, that is, of Genus, Species, and Individual, which are relations belonging to logical thought or Conception. The assumption which underlies this method is, that Thought is the sole generator of experience; or again, otherwise stated, that the Concept (*Der Begriff*) is All that is. And this assumption, so far as Logic alone, and not Metaphysic, is concerned, may be expressed by saying, that Hegel substitutes Thought, which is one mode of Consciousness, for Consciousness in its entirety, as the evidence or subjective aspect of Reality.

The phenomenon, or state of facts, upon which this fallacious interpretation has been put, is as follows:—Every possible object of consideration, down to the very simplest, is something concrete,

* "Der Begriff ist als absolut mit sich identische Negativität das sich selbst Bestimmende." Wissenschaft der Logik. Zweiter Theil, Zweiter Abschnitt. Die Objectivität.

feeling and form, content and nexus, together. It is, therefore, susceptible of analysis, quite irrespective of what specifically it is, what the concrete object is, which we select for consideration. It is an union of attributes, i.e., a concrete, independently of our selection; but it has also an unity, as compared with other concrete units, given to it by our selecting it for consideration. These two kinds of unity are quite distinct; and the distinguishing them, one from the other, is also matter of analysis. The second kind of unity we know to be conceptual, that is, due to our own act of thought in selecting an object for consideration. But what about the first? Is there anything to show that this unity also is due to a conceptual act? It is certainly not due to any conceptual act of ours, being in every case the pre-supposition of such acts, being found in the data upon which they supervene. To say that it is due to an act of conception exercised by the concrete unit itself, is not only an unsupported, but, when we come to look at it closely, an unthinkable notion. We are, therefore, left to analysis of the phenomena in both the cases mentioned; in the first case, to analysis of the phenomena as perceptual data of conception; in the second, to analysis of the act of conception as exercised upon, and therefore as distinguished from, the perceptual data. Now this second kind of analysis is that which gives us insight into the nature of Logic.

II.

But now, bearing these results in mind, let us approach the subject from a quite different direction. Let us ask ourselves what, after all, we mean by Logic; what we expect it to be, what we want with it, or ask it to do for us? Two questions, you see, are here put—first, what Logic is; secondly, what the good of it is. We thus approach it as something entirely new to us. Even its place and function in nature we call in question. In fact, these two questions embody two suppositions about it, which formed a very old subject of debate concerning it—Is Logic an Art or a Science? The answer to this debate was, it is well known, that Logic is both the one and the other, having the two functions or departments, *Logica Docens*, in which it is a science, and gives the theory of an art, and *Logica Utens*, in which it is an art following the precepts laid down by *Logica Docens* as a theory.

Now, with which of these are we concerned to-night—with both, or with neither? We are concerned partially with both, and with the relation between them; but we are also concerned with a third thing, namely, with the relation borne by both the one and the other

to the phenomena which come under their survey, and, as a special part or province of those phenomena, to the mental or psychological function of thinking, upon the existence and exercise of which they, as the Laws of that exercise, are dependent.

There is, in fact, a Theory of Logic, quite distinct from *Logica Docens* as the theory of *Logica Utens*. And it is to this Theory of Logic that we have recourse in obtaining an answer to the question of this evening. What is Logic? For this question obviously includes both What is *Logica Docens*? and What is *Logica Utens*? And in giving that answer to this larger question, concerning Logic as a whole, we are evidently referred to something which, in that point of view, lies beyond Logic; and that something can only lie in two directions, according as we distinguish Logic either from the object-matter with or upon which it operates, or from the agency or activity which it guides in moulding and re-moulding that object-matter. That which operates, that which is operated on, and the operation—these three are an exhaustive division of the whole phenomenon indicated by naming any one of them. It is only by treating the question in this comprehensive way that it is possible to obtain an answer to it which shall be in any degree satisfactory, the question itself being so wide and comprehensive.

Now, the very fact of the distinction, within Logic, of *Logica Docens* from *Logica Utens*, shows that Logic is bound up, on the one hand, with some practical mental activity, having a purpose in view, and, on the other, contains laws to which that activity is subject, and by obedience to which that purpose is obtained. This mental activity itself, then, cannot be disregarded in endeavouring to understand its purpose and its laws, which together constitute *Logica Docens* and *Utens*; which is only saying in other words, that the psychological relations of Logic must form an essential part of its whole theory. And on the other hand we have seen above, that this activity with its laws pre-supposes certain perceptual data, upon which it operates as its object-matter; and this forms the other complementary part of that above-mentioned something distinguished from Logic, which is requisite to our framing a theory of it, or giving an answer to the general question with which we began. We have, then, (1) an activity operating, (2) perceptual data operated on, and (3) the operation itself, the laws of which are logical.

So far, then, as we have gone at present, I think it is clear that Logic contains the laws or forms of thought or reasoning in application to phenomena, the laws or forms in or under which we think, as distinguished from perceiving. *Logica Docens* contains the systematic account of those laws or forms, under the three main heads of Conception, Judgment, and Inference, together with a

system of rules for their application; and *Logica Utens* consists in applying the same laws, forms, and rules, to test the validity of reasonings, whether in the different departments of science or in matters of every-day life and opinion, all reasoning being the application of thought to phenomena, and Logic in its use being the application of the laws of thought to test, correct, or confirm that process of thinking.

The Theory of Logic thus takes its rank as a department of that general subjective analysis of the phenomena of consciousness or experience, in their entirety, which I have been accustomed to call Metaphysic, a department which may be conveniently named *Metalogic*; while Logic as a system or theory itself, that is, *Logica Docens*, which supplies the laws, forms, and rules for application by *Logica Utens*, takes rank side by side with the theoretical part of Ethic as the science of the laws regulating one of the two main branches of human, conscious, and volitional action, namely, that which is directed to the discovery of the True; the other branch, which belongs to Ethic, being that directed to the discovery and, through the discovery, to the actual and effective choice of the Good.

III.

The general position, scope, and nature of Logic being so far ascertained, we have next to examine it somewhat more in detail. We see, that what the name *Logic* primarily suggests and conveys as its meaning is that part of the whole which we have called *Logica Docens*; for this it is which contains that system of forms and rules of Concept, Judgment, and Syllogism, which compose, as it were, the body of logical doctrine or science. We seem at this point, or rather I ought to say we should seem, if I have been properly clear and distinct in my exposition hitherto, to stand on plain and intelligible ground, the outline, purpose, and general character of Logic, as a system by which thought is guided in the pursuit of truth, being brought into distinct view.

But it is precisely here, and in consequence of this being done, that the main *crux* in logical theory arises. Logic, we have seen, is a practical science; by which of course is meant one which conveys precepts for the conduct of reasoning processes, as distinguished from one which seeks merely to establish truths of fact about them or any other phenomena. Θεωρητική μὲν γὰρ τέλος ἀλήθεια, πρακτική δὲ ἔργον. (Aristotle—Metaphys. A Minor, Cap. I., quoted in Mansel's Edition of Aldrich.) But, considered closely, is there such a thing as

a practical science at all? Is it not an impossibility, being a supposed union of contradictories in one and the same act, like the thought of a round square? This question was staved off for a time by saying that Logic was both Art and Science, and distinguishing *Logica Utens* as the Art, *Logica Docens* as the Science. But the question itself is not thereby solved. *Logica Docens* by itself is a practical science; and thus the question, whether a practical science is not a contradiction in terms, meets us when we consider *Logica Docens* by itself, and on its own ground.

The difficulty or apparent contradiction is this:—Science, seen in any of the conscious actions which go to constitute it, or as the conscious action of knowing, is a knowledge of something existing independently of that act of knowing; practice as a conscious action is choosing something which is both non-existent at the time and is not independent of that act of choice. The object of science must be thought of as necessary, and not contingent on the act which knows it; that of practice as not necessary, but contingent on the act which chooses it. Thus the one action necessarily excludes what the other necessarily involves; and therefore one and the same act cannot in all its parts, or in one and the same respect, bear both characters, that is, be science and practice at once. In other words, a science which is practice, or a practical science, is an impossibility.

This difficulty is not a mere subtlety of over-refinement. It meets us in a much more ordinary and common-sense form of statement, which is just as hard to encounter. I mean, in shape of the question, does Logic tell us how or what we ought to think, in order to think rightly, or does it tell us how or what we do and must think, supposing we think at all? Or again,—Are the Laws of Logic laws by which all thought invariably moves, or laws by which it ought to move, to attain its object, truth? Or again,—Are they laws or general facts of Nature which cannot be disobeyed, being facts, or are they commands or precepts given, like human laws, for a purpose, and capable like human laws of being violated?

It will not do, in solution of this difficulty, to identify reasoning generally with reasoning well, and to say that to reason illogically is virtually not to reason at all. This may be a mere subterfuge. We know well enough that there are processes of reasoning which are illogical, fallacious, and erroneous; in other words, that there is such a thing as bad reasoning as well as good. In fact, if there were not, if error in reasoning were an impossibility, why cultivate Logic at all? Our reasonings would then be all infallible, done for us and through us by Nature, and truth would be attained, by us

or by them, necessarily and inevitably, with the same unerring exactitude as the planets perform their revolutions, and the seasons recur in their circuits. The fact of error in thinking, and the constant possibility of its occurrence, are the very facts which give rise to the cultivation of Logic, and determine its function.

On the other hand, the idea that we can reason illogically, can reason disobeying the laws of Logic all the time, seems to suppose a complete divorce between the laws of reasoning and those of Logic, a divorce which on its part is unthinkable. For if the laws of Logic are not also laws of reasoning in the wide sense, meaning laws of thought in its entirety, what are they, and of what can they be laws? The activity or function of thinking is that in which they inhere, and which they are said to govern. They constitute its nature as an operation of thought. What is it without them? What are they without it? It seems, then, that thought or reason is incapable of being illogical; and yet we have just seen the very opposite appearance assume an equally imposing aspect of certainty. We thus have before us the very same *crux* as before. Reasoning practically can and very often does violate the laws of Logic, and yet, as a matter of fact, reasoning is constituted reasoning solely by fulfilling those laws.

I dwell upon this point because I think it is seldom seen quite in its true light, or brought out in its full significance, by writers on Logic. Mansel devotes some pages to it, both in his *Prolegomena Logica* and in the Introduction to his edition of Aldrich's *Rudimenta*, but accomplished logician as he is, and instructive as his writings always are, his remarks on this point cannot, I think, be considered entirely satisfactory. And yet the point is one which gives more insight into the nature and functions of Logic than any other point connected with it, and not of Logic only, but of the practical sciences generally, and of the human agent, whose nature is the ground or field in which the union of the practical with the speculative, of practice with science, takes place. But now for a few words as to the solution of this apparent contradiction.

The point of the difficulty lies in the fact that practice, being a step forwards into the unknown future, pre-supposes alternatives, and with them the possibility of error, while reasoning, being a forward movement in obedience to fixed and irreversible law, which offers no alternatives, apparently excludes the possibility of error. It seems, therefore, that one and the same forward movement, or conscious action, cannot possibly bear both characters at once. Now this is undeniably true, so long as we take the action in question as an undivided, or rather undistinguished whole. But there is nothing to show that a conscious action may not be so distinguishable into parts

or elements, inseparable from each other, as to be knowledge of truth in one part, or in respect to one element of it, and to be initiation of event in another part, or in respect of another element, and yet retain its unity as a conscious action, being the union of the very parts or elements which are so distinguished, and which exist within it in mutual reference to each other, as parts of a single whole. To show this, it would be necessary to point out what the parts or elements so distinguishable in it are, and make their positive reality evident.

But to what quarter are we to look for a ground of distinction applicable to a single conscious action of thought? What is it which constitutes it an action of thought? Its obeying the laws of Logic. To that quarter then, we must first look, though this alone will not give us the full solution. Are the so-called laws of Logic alike? By no means. There are in fact two quite different classes to which what we call Laws of Logic belong. There are first the Postulates or Axioms of Logic, the so-called three Laws of Identity, Contradiction, and Excluded Middle; and secondly there are the laws which govern the various modes and forms of Judgment, and of Syllogism. Of these two classes, the former is the foundation of the latter; the former are Laws of Nature, constitutive of thought as thought, laws which cannot be, and as a fact never are, disobeyed in thinking; the latter are Institutions, founded on the former, but still institutions which have the nature of precepts, established for the purpose both of premonishing thought in seeking truth, and of criticising and correcting it, when it professes to embody its attainment in definite statements.

All concrete thinking or reasoning, then, without exception is subject to, and moves forwards only by obeying, the Postulates of Logic; but it does not at the same time necessarily move forwards by obeying or moulding itself into those forms of conception, judgment, and syllogism, which have been selected and established by Logic as closely and obviously conformable to the Postulates. It does not spontaneously take those forms at all;—the reason of this we shall come to presently;—nor need it do so in order to be good and valid reasoning; it is not from obedience to them, but from obedience to the Postulates, that its validity is derived. Still this does not solve the difficulty, for we have seen that, although these laws are laws of Nature which cannot be disobeyed, yet some concrete thinking or reasoning is illogical, fallacious, and erroneous, and is shown to be so by its *not* obeying these very laws. How can this be, if the so-called reasoning is reasoning at all? If these laws are not violated when we reason wrongly, what do we mean by reasoning wrongly? Something is violated by it;—what is it, if not the Postulates?

What is violated is the harmony of two or more results of concrete reasoning with each other, or with other results of reasoning, all the lines of concrete reasoning severally moving forwards by obedience to the Postulates. The harmony of different lines of reasoning with each other in their results, which is one expression for Truth in reasoning, is then violated, or rather not attained at all; and this non-attainment is shown by the fact of the results when brought together being self-contradictory, that is, being impossible in combination without violating the Postulates. When we come to a result in concrete reasoning which contradicts another result, one of these must be wrong. Why? Because we cannot, *and do not*, think them both together. To think them both together, that is, as both true together, or in combination, *would* violate the Postulates, were it possible. But it is impossible; and this impossibility *is* the necessity of the Postulates, as Laws of the Nature of Thinking. They are a test of truth in concrete reasoning, just because they never are or can be violated.

Truth itself is not a test, but an aim. We realise a harmony to some extent in every step of our advance in concrete reasoning, a step in advance towards an ultimate harmony, or harmony of harmonies, which is an Ideal, that is, Truth. But the harmony itself, or the fact of moving towards a harmony, is no test of truth, any more than the Ideal, or Truth itself, is. It is the proximate aim, as Truth is the ultimate aim, of the movement in reasoning. And both harmony and truth require testing, to distinguish the real and lasting from the apparent and evanescent. This test is found only in the avoidance of contradiction in the results, so that one apparent harmony does not contradict another. If they do, one must be, *and is*, given up. Which of the two is given up, and which retained, is then determined by an examination of the two lines of reasoning which either have led to them, or may now be followed in support of them.

This may be illustrated by the parallel case of mathematic. The laws of Arithmetic are not violated when I add up a column of figures wrong. In saying for instance, $7 + 17 = 23$, I come to an erroneous result, but its necessary error consists in their necessary inviolability. I am confused in my units; which is shown by the fact, that I cannot think out distinctly 17 added to 7 without seeing that 23 is one of the many cases of contradiction to the only true sum, namely, 24. Every number, not 24, is forbidden by the laws of arithmetic.

But you will say, this test is merely negative, destructive of false results, but not productive of true ones. The true result is not produced, but merely left standing, by the application of the test. What produces, in reasoning, any result at all; and how do the Postulates of Logic concur to its actual production? What is reason-

ing as a positively productive, or as it is sometimes called, *synthetic* process? These questions can only be answered by reference to the system of functions to which thought or reasoning belongs. And the answer to them will also supply the second and completing part of the solution of our original *cruz*, by showing the parts or elements, in the conscious action of practical reasoning, from which error springs, and by distinguishing these from those which are necessary to it as reasoning simply. We have just had a distinction of parts pointed out in the laws of logic, which reasoning obeys; we shall now see a corresponding distinction pointed out in the reasoning function which obeys them. Combining the two distinctions, we shall then see at once the full answer to what I called the *cruz*, the question, namely, How reasoning can be reasoning and erroneous at once, or how any reasoning can as reasoning be erroneous?

Let us then consider reasoning as a productive or synthetic process, and in connection with other functions of the conscious agent. We shall then see, on the one hand, the relation in which thinking stands to its data, the perceptual matter which it remoulds into the form of concept and judgment, and on the other the motive power by which that remoulding is effected. When we speak of thought as synthetic or moving forwards, what we mean is, that it is impelled to give a new shape to data which are already in consciousness, by the desire of discovering the relations between them, and so reducing them to harmony. It is this desire which makes thought a volitional as well as conscious action. This side of the nature of thought or reasoning may be called its psychological, as distinguished from its logical, character. It is that which it possesses as the action of a real conscious being or agent.

In this character, that is, simply as the volitional conscious action of a real agent, and apart from its logical character, it is subject to two Laws, which are sometimes classed, though in my opinion not with strict accuracy, as logical. One is the Law of Parcimony; the other the Law of *Ratio Sufficiens Cognoscendi*. The former attaches to it simply as action, and corresponds to the law of movement in the line of least resistance in mechanics. It means, that, in desiring harmony in our thought, we always desire it on the easiest terms, or in the simplest form possible: *Frustra fit per plura quod fieri potest per pauciora*. The latter, or law of *Ratio Sufficiens Cognoscendi*, attaches to thought as action upon given data, and what it expresses is, that the nexus between them must be real, that is, found and capable of being pointed out in the data themselves, whereby one may be regarded as involving, or being a reason for, another. *Assert nothing without a reason why you assert it*—may be taken as its formula. It is plain, I think, that these laws express the nature of the reasoning process,

simply as conscious volitional action, aiming indeed at truth, but irrespective of its logical character as a self-sifting, and therefore a self-validating or self-justifying action, since they supply of themselves no test of true or false, no test as to whether the harmony, which may be attained by the action in any case, is real or only apparent. They express the nature of reasoning as a tentative process simply, which in any case it is; they do not, like the Postulates, attach to it both as a tentative and as a conclusive process. In short they belong to it as existing *de facto*, but not as *de jure*.

The two psychological laws now mentioned are a sufficient account of what is called the synthetic or constructive process or character of reasoning. No *a priori* forms of the understanding or the reason are employed or required to build up experience, as an experience of a real world. I obtain perception of real concrete solid objects, and of a connected world of such objects, by putting together different perceptions, and perceptions of different kinds, in the only way in which they will harmonise one with another, without bringing one partial harmony into contradiction with another. It is thus, for instance, that perceptions of colour and perceptions of hardness are harmonised into a perception of a single concrete visible and tangible object. Such an object is the interpretation, on the easiest terms, of a multitude of visual and tactal perceptions, constantly varying, and varying in constantly corresponding relations with each other. Until we have so interpreted the perceptions and their perceptual relations, we have no category or concept of Substance. That idea is their product, not their generator. We construct our knowledge of the real world tentatively, out of perceptual data belonging to what are sometimes called feelings of internal and external sensibility.

Synthetic reasoning, then, is tentative. The word *tentative* contains the solution of the whole question. At least, it puts us on the track which leads immediately to the illuminating light. What are the data which reasoning is the tentative effort to harmonise? They are those of mere sensation, perception, and spontaneous association or redintegration of sensations or perceptions. Percepts given by non-volitional channels, and percepts renewed in ever-changing groups by non-volitional channels—these are the data or matter upon which thinking operates; and thinking arises in the consciousness which we suppose occupied by this non-volitionally given matter, at the moment when desire arises to harmonise any portion or portions of what is so given. At that moment we are said to give attention to the data for the purpose of knowing them; attention being an exercise of volition, and that volition being a volition for the purpose of reducing the data into an order which they have not as data simply.

Below this point our consciousness is filled with non-volitional or spontaneously offered percepts, not indeed unconnected, but confusedly connected with one another; above it a change to order begins, and our consciousness becomes filled with percepts moulded into concepts, concepts connected into judgments, and judgments connected into reasonings; the whole state or process, so far as it is above the point in question, being described by universal usage as one of thought or reasoning. The spontaneous processes of perception and redintegration below the point do not cease, so as to make way for the substitution of the volitional process of reasoning above it; but they continue to exist as its feeders, supplying it with its data, and being perpetually moulded, as it were, into its tissue.

Now we see whence error comes into reasoning, and why it is inevitable. It comes from the data which, at any given moment of tentative reasoning, are supplied to thought by the non-volitional content or current of consciousness. It may be that these data consist, either wholly or in part, of concepts or ideas already formed by previous reasonings. This does not prevent them being real data of further reasoning. It is sufficient for their function as data, that they should be supplied from sources which are ultimately perceptual in their nature, and through channels which, at the moment of the reasoning, are spontaneous or non-volitional. Confused perception and confused imagination are thus the only ultimate source whence error springs, but springs inevitably, in our tentative reasonings, or attempts to bring the data of perception into harmony with one another.

Thus in the above instance of wrong addition, the numbers 7 and 17 are the data, and these it is of which my perception or imagination is confused. I confuse, say, 7 with 6, or 17 with 18. The error has its source, not in the reasoning part of the process, the act of addition of units, but in the confusion of one imagined group with another, which, for my purpose, ought not to be in consciousness at all. It is to avoid this confusion that rules or methods of arithmetic are given, such as writing down the figures in columns, with units under units, tens under tens, and so on, and then adding each column severally, and carrying the excess, if any, to the next highest column. To such rules as these in arithmetic correspond, in Logic, the forms of subject and predicate; universal and particular, affirmative and negative, propositions; place of the middle term in syllogisms; and the various rules for dealing with these, such as the *Dictum de omni et nullo*, the rules about antecedent and consequent in hypothetical syllogisms; and so on, throughout the whole of *Logica Docens*.

The moment, then, which distinguishes spontaneous from voluntary redintegration is the moment which marks the transition from perception to thought, the modification of perceptual forms of consciousness

into conceptual and logical forms. Voluntary attention to the perceptual data for the purpose of knowing them, or perceiving their relations to one another, of whatever kind these relations may be, is the real act by which the transition and modification are effected. I say to the *perceptual* data, because I wish to put aside the case in which the data consist of, or contain, already formed concepts. Concepts may be among the data of a given act of thought, because they may be supplied from the stores of memory by spontaneous redintegration, and attention may even be employed to bring them back into consciousness by setting the trains of association at work to which they belong. But these cases do not throw light upon the origin of the reasoning process, meaning thereby not its historical origin, but its nature and connections when considered as reduced to its simplest instances, or lowest terms. If concepts are taken as among the data of reasoning processes, the same question again recurs concerning their formation into concepts, and the enquiry is not thereby advanced. The moment of the formation of concepts, and the moment of origin of the reasoning process, are one and the same. This moment is that of transition from percept to concept, not merely from one concept to another. The data, therefore, must be taken, in regard to the question before us, as purely perceptual.

Psychologically, then, we see that this moment of the origin of reasoning is a moment of voluntary attention, a moment of passing from spontaneous to voluntary redintegration. But what is it logically? What is the logical *differentia*, or character which marks the reasoning, or voluntary redintegration, which it initiates, as logical? How is it the origin of Logic as well as reasoning? This is the real core of the question which I am attempting to answer this evening. What is Logic? The answer is, that the act of attention operates in and by the Postulates of Logic. They are the law of its operation. It acts or takes place in no other way than that of which they are the briefest and simplest expression. Thus: I attend to a percept, singling it out for reference to or comparison with others; this percept let us call *A*. Now in this act what is contained? First, that *A* is *A*, and *A* alone—which is the First Postulate, or Postulate of Identity. But why, you will say, make a Postulate of so obvious and trivial a circumstance? The reason is, that *psychologically* we cannot retain *A* unaltered in consciousness for a moment. Even in stating the proposition, *A* is *A*, the first *A* is a thing of the past when we utter the second. What we gain, therefore, by the proposition is the statement that the first *A* is what we mean by *A*, whenever we say it. We arrest, thereby, a moment of consciousness in thought, that is, *logically*, notwithstanding that psychologically it has gone from us never to return.

The second Postulate, *A isn't Not-A*, is involved in the first, being involved in the same severing and arresting act of attention. By *A* is meant, not merely *A* alone, but *A excluding everything else*. The opposite aspect, so to speak, of Identity is expressed thereby, the difference of *A* from everything else but itself. This is called the Law or Postulate of Contradiction.

The third Postulate is likewise contained in the other two, both severally and conjointly. *Everything is either A or else Not-A*. There is no third alternative. This is called the Law or Postulate of Excluded Middle. It is clear that it merely accentuates or ascertains the meaning of the two former Postulates, expressing the exhaustiveness of the division marked by *A* and *Not-A*.

These Postulates are Laws of Nature, so far as they express the nature of the act of attention for the purpose of knowing; and they are Postulates or ultimate Canons of Logic as a practical science, so far as they may be appealed to as a test of reasoning, or laid at the foundation of other logical forms and rules. They are the whole fulcrum and leverage of the act of thought, so far as thought is a logical process, and they are so because they are laws of the nature of the act of thinking as a psychological process. No logical reason can be given for their logical validity, because all logical reasoning is built upon and pre-supposes them. The fact that they are laws of the psychological process of attention and reasoning is no evidence of their logical validity. All we gain by appealing to that fact is to show the absence of any possible rivals to them as ultimate laws of reasoning, and thereby at the same time to bring them into harmony with what we have, for the purpose of the enquiry, excluded from them, that is, with the *de facto* world of natural realities; a momentary exclusion based ultimately on the distinction between knowing and being, between our knowledge of reality and the reality known thereby.

The Postulates of Logic thus stand at the head and source of all reasoning processes, in the wide sense of the term reasoning. Without them there is no Conception; there is no Judgment; there is no Inference; which are the three functions giving origin to the three main departments of Logic, with their subdivisions and doctrines. The *A* of the Postulates stands for any percept whatever, modified into a concept by the act of attention in order to know it. In attending to it for that purpose, I select it from the perceptual context in which it has occurred, and wait to see what will be suggested, after my selection, either out of its own content as a percept, or out of the perceptual context in which it occurs, as predicate of it. Thus it is only as a concept, or arrested percept, that it enters into a judgment, and it is only as the subject of a judgment that it acquires a definite

content as a concept, its perceptual content becoming its conceptual predicate. Comparison, which is the perception of similarity and dissimilarity in percepts purposely attended to, is thus involved in every logical judgment which predicates one content of another, whether affirmatively or negatively, and thus it is that a first beginning of classification is made. Classification in its entirety, as the process and result of grouping similars with similars, and apart from their dissimilars, thus rests on the application of the Postulates of Logic.

At the same time it is clear that, though the conscious act of attention which singles out a percept for the purpose of knowing it, and so modifies it into a concept, is governed by the Postulates, and cannot take place without bringing the selected percept under them, yet the Postulates in no way dictate the choice which it makes. The choice is dictated by something in the content offered by the non-volitional process, either of perception or spontaneous redintegration, something which operates as a motive for our attending to it. The Postulates are completely indifferent to the particular percept or content selected, or about to be selected, in the act of attention. In fact, the Postulates of Logic, though essentially involved in the act of choice *as an action*, are completely indifferent to the alternatives which it contains, and completely non-essential to it as a choice of *this* rather than *that*. They are like a balance which is essential to the act of weighing, but indifferent to the decision, whether *A* or *B* is the heavier. Thus one and the same single act of attention for the purpose of knowing is liable to error on the part of its content, and exempt from error on the part of its logical place in thought; which place it takes in virtue of its operating through the Postulates. That single act itself has two inseparable but distinguishable elements, one being derived from its perceptual content, the other being the rudiment and foundation of its logical form.

The solution, then, of our original *cruce* is briefly this. An act of concrete reasoning consists psychologically of two parts in close connection with each other, one spontaneous the other volitional, one supplying its perceptual data, the other dealing with them under the law of the Postulates. Whenever the reasoning as a whole is erroneous, the error arises from the spontaneously supplied data, and not from the volitional action, which, so far as it is simply an application of the Postulates, is infallible. At the same time it is this latter part of the whole action in which its *differentia* as reasoning consists, and which gives the character of a reasoning to the whole.

IV.

Turning in the next place to the derivative or institutional part of Logic, founded on the Postulates, the first thing to be noted is, that it is selected and instituted for a definite purpose, this purpose, the aim which makes *Logica Docens* a practical science, being that of serving (1) as a preventive in initiating, and (2) as a test in criticising reasonings, whether our own or those of others. The same forms and rules must serve for both the purposes, and in both the cases mentioned. The latter consideration at once restricts our selection very considerably. Men generally must agree in recognising the forms and rules to be chosen, as being the forms and rules which they find most serviceable in their own reasonings with themselves.

But this restriction would again be practically removed, and an almost indefinite amplitude be restored to the body of Logic, or logical doctrine, if the purpose of reasoning itself were conceived as any other than that of attaining a knowledge of Truth, that is, of the general and particular facts of Nature. If, for instance, Disputation, and victory in disputation, were regarded as ends in themselves, or as the ultimate ends of reasoning, then it would follow that Logic would be regarded as an armoury, to be filled, as completely as possible, with weapons of the highest attainable precision and widest attainable range. All possible distinctions and all possible combinations of logical ideas and modes of thought would be sought out, named, and classified, and the elaboration of this system regarded as contributing to the perfection of the science. This was, I believe, to a very great extent, the case towards the close of the Scholastic period, and yet this very perfection of the system is generally, and in my opinion truly, held to indicate the decline of Logic as a system conducive to the ascertainment of truth.

It is, of course, a question of the greatest delicacy and difficulty to strike the true medium between too much and too little in so complicated a matter; nor am I about to make any attempt to do so. Some principles, however, which should guide the selection may perhaps be suggested. The first consists in requiring the immediate and obvious dependence of the forms and rules to be selected on the Postulates. Another is disregard of differences arising from specialities of the object-matter of the reasoning. And thirdly may be mentioned disregard of forms and rules, suggested solely by grammatical forms and modes of language. Speech and writing are the servants of thought, and should be employed without suffering them to dictate the form which thought should take. The employment of diagrams falls under the same principle. In every case the eye of

thought should be fixed upon the thought itself, asking what we mean in using this phrase or that, this diagram or that; and whether what we really mean by one phrase or diagram is the same or not the same with what we really mean by another.

In considering what I have called the body of Logic, that is, the selected rules and forms which it incorporates in *Logica Docens*, the first province is formed by the application of the Postulates to the perceptual data, and embraces conception and concepts (1) in their relation to perception and percepts, (2) in the relation of concepts to one another. Its main subdivisions treat (1) of the comprehension and extension of concepts; (2) of singular and universal terms; (3) of what may be called the logical categories, or heads of predicates, which are four according to Aristotle, *Genus, Definition, Property, Accident*; five according to Porphyry, *Genus, Difference, Species, Property, and Accident*; (4) of logical division and definition; and (5) of the opposition of concepts. Of these I can touch only on the first this evening, and that but cursorily.

Judgment, we have seen, is employed in the first formation of concepts. But until judgment has completed the formation of a concept by predication of a content, there is nothing in the judgment to distinguish it from a mere act of attention for the purpose of knowing, or from the Postulates *per se*. We cannot understand what judgment is, without taking it in contradistinction from the completed concepts which are its own products. Concepts are thus the condition of our understanding concrete judgments; and it is concrete judgments, or in other words, affirming or denying predicates having a content of subjects having a content, that form the second province of Logic, inference from judgments being the third.

The first province, then, that of Conception, contains, first and foremost, the relation of concepts to their perceptual data; secondly, and consequently, the relations of classes of concepts to each other. Concepts spring, as we have seen, from percepts, and their truth or accuracy is verified by an appeal to percepts again. Appealing to experience means appealing to percepts in the last resort. The great change wrought by conception in percepts is, that the resulting concepts are general terms. All concepts, as such, are general; all percepts, as such, are singular or individual. When, for instance, in a perceived object I fix my attention upon what we afterwards call an attribute, for the purpose of knowing it, say, the attribute of its red colour, I hold that single instance of red fast in thought, abstracting from the other attributes of the object; and what follows is, that similar instances of redness group themselves spontaneously with it in consciousness. The name which I give it, *red*, then signifies all the instances as well as this one, and not only all instances in the

past; but its signification is prospective also, that is, includes all future and all possible instances of it, if such there should really be.

The word *red* thereby acquires two quite distinct meanings, primary and secondary, but both of them general in a wide sense. Primarily it means the whole class of shades or modifications of a special colour sensation, similar *inter se*, the whole gamut of shades of red; that is, it means *redness generally*, which is commonly called its *comprehension*. Secondarily it means the whole class of occurrences or instances in which any of these shades occur, one of which we have supposed to be the percept originally attended to; that is, it means *red objects collectively, qua red*, which is commonly called its *extension*. In the first meaning the concept *red* is a strictly general or universal, in the second a collective or aggregative, term. But both its meanings are derived solely from perception, and retained only so long as it is held applicable to percepts again. Percepts are facts, concepts are modes of taking them, or thoughts about facts.

There are no names for the percepts as such. To indicate them as percepts we must either give them what are called *proper names*, or prefix a demonstrative pronoun, or some equivalent of one, to a concept-name, as *this redness, that red object*. Their names are, as it were, reflected back upon them, from the mirror of conception, which their own rays have first struck. The application of a concept-name to a percept or group of percepts gives what is called its *denotation*; the percepts are denoted by it. And the percepts denoted may belong either to its comprehension or to its extension; that is to say, in the instance before us, they may be either one, more, or all the shades of *redness*, or they may be one, more, or all the instances of *red objects qua red*. But the name itself, in order to be applicable, must have a meaning; and this meaning, as distinguished from what its application denotes, is called its *connotation*. Its connotation, therefore, consists of its *comprehension*. Members of the extension of a concept-name, in regard to which that name is not strictly general but collective or aggregative, are at once denoted and connoted by it; that is, in the present case, denoted as objects, connoted *qua red*. Their existence, *ōtī ēōtīv*, is denoted, and their nature, *τī ēōtīv*, is connoted, by the same word.

When we come to the case of concrete objects consisting of combinations of abstract percepts, of which we have taken redness as an instance, say, for instance, oranges, to keep to the class of red or at least ruddy objects already introduced, we find the same phenomena meeting us again, but in a more complex way. The concept *orange* has then for its extension and denotation all oranges whatever and wherever; and for its comprehension and connotation a certain combination or union of all the general concepts expressing

the abstract perceptual qualities or attributes which are combined in each particular orange; say, for instance, to make a selection for brevity, redness, sweetness, solidity, and roundness. The greater complexity of this case is shown by the circumstance, that the conceptual combination of these concepts is not a combination of the whole comprehension of them severally taken. As combined in the concept *orange*, it is only some shades of redness, some kinds of sweetness, some modes of solidity and roundness, that the combination includes. Many things are red, sweet, solid, and round, besides oranges. It is only, to speak figuratively, the *common intersection* of these general concepts, considered as brought together and superposed, which constitutes the general concept *orange*.

Why, and how is this? The reason is, that our conceptual combination is artificial, or instrumental to a knowledge of nature as it really is, and that nature presents us with combinations of qualities, as, in the present instance, with the combination of the qualities named, in the perceptual objects denoted by the concept-name *orange*. In every orange taken as a concrete percept, the redness, the sweetness, the solidity, the roundness, are combined into a single thing, called a real orange, in a way quite different from the imaginary conceptual superposition and intersection of the concepts, *red*, *sweet*, *solid*, *round*. When I perceive an orange, I perceive that natural combination or interpenetration of qualities, each present in one singular or individualised mode only; when I conceive one, what I conceive is a case or instance belonging to the extension of the concept *orange*, which concept is formed by the common intersection of the comprehension of the concepts, *red*, *sweet*, *solid*, *round*. I perceive the thing as it exists, as nature has made it; but I can understand it only by (1) analysing it into percepts, (2) conceiving these as general terms or concepts, and (3) combining these latter, so as to exclude all those modes of them which are not found in natural combination with the others.

The natural or perceptual combination of qualities in a concrete object, as in an orange, should be distinguished by a name, and perhaps may be best called the *Intension* of the object, as opposed to the comprehension of the concrete concept of it, *orange in general*; some singular or individual mode of the intension being possessed by every member of the extension of the concept. An individual concrete thing is thus a whole of intension, as opposed to the concept which gives the general name of the thing, and which is either a whole of comprehension or a whole of extension. Intension, in fact, in the complex or more concrete case, takes the place of the simple perceptual quality or attribute, e.g., *red*, with which we began in the simple or abstract case. I need hardly remark, that the perceptual

unity, or whole of intension, differs *toto cœlo* from the conceptual unity or whole either of comprehension or of extension, that is to say, from a whole which is marked either by a strictly general and universal, or by a collective term. I mean, that it cannot in any sense be called a general or universal term.—I trust I may be pardoned if I add, that I believe the distinction now drawn out between the *Intension*, *Extension*, and *Comprehension* of logical terms, will be found somewhat more consonant to the general usage and nomenclature of logicians than that which, I regret to say, is contained in a certain passage of my *Philosophy of Reflection*, although the view upon which both are founded remains substantially the same. What is distinctive of my view is its reference of the term *Intension* to the perceptual content of logical terms, as distinguished from their conceptual content, whether in comprehension or extension; *intension* and *comprehension* being usually taken as synonymous.

V.

Time warns me to leave untouched the many other matters belonging to the first province of Logic, and hasten to the second, the province of Judgment. Propositions are statements of judgments; a proposition is an assertion either affirmative or negative, that is to say, is the expression in words of the action or process of either joining or disjoining, in thought, two terms, both being in some way present to consciousness. Those who consider thought to be the only ultimate mode of consciousness are here in an embarrassment, which is especially obvious in the case of negative judgments;—how can thought disjoin what only thought puts together, and that in one and the same undivided moment? It would seem that they must hold, that to contain a contradiction is an essential attribute of truth, not to contain one being impossible. In this embarrassment we are entangled, if we adopt the Hegelian conception of thought as the sole generator of its content. It is true that Hegel avowedly accepts contradiction as the basis of his system; but then his notions of what contradiction is are peculiar; and the sense in which he accepts it is not the same as that in which I charge him with it.

Apart from this unfounded conception, the essential point concerning judgments is the nature of the nexus between their terms, not as facts or objects in nature, but as terms of judgment, that is, as either joined or disjoined in thought. In the case of categorical judgments this nexus is called the *copula*, and is expressed by the words *is* or *is not*. The copula itself is thus either affirmative or negative. And, if we start from the basis already shown to be the

basis of judgments, we shall see that what the judgment expresses by its copula is the coalescence or non-coalescence of its terms, when the former of the two, which is called the Subject, is held fast by attention with the view of seeing what it will immediately suggest. If this experience compels their union, we affirm the latter, that is, the suggested term, which is called the Predicate, of the first or suggesting term, which is the Subject of the judgment. If the experience forbids their union, by showing an incompatibility between them, as for instance, if *round* suggests, but will not coalesce with *square*, we deny the predicate of the subject.

If on the other hand it neither compels nor forbids it, our judgment remains in suspense, but the experience gives ground for judgments of a special kind, namely, judgments of possibility and greater or less probability, which come under the head of Modal Judgments. This plainly brings into the constitution of the judgment considerations founded on differences in the content of the terms compared, as distinguished from the simple connection or non-connection of the terms with one another, which is expressed by the copula as affirmative or negative. Modal judgments, therefore, are really two judgments in the guise of one, a judgment of connection or non-connection, and a judgment of the degree of certainty attending the assertion of it. As modals they are distinguished into judgments of fact simply, of probability or contingency, of possibility, of impossibility and necessity. The basis of the whole, however, remains the same, namely, the simple categorical assertory judgment of the fact of connection between two terms. And accordingly any modal judgment may be expressed as a categorical, by throwing the expression for its degree of certainty out of the copula into the predicate; as, for instance: Injured men are probably vindictive; The clock has certainly struck twelve.

A simple categorical affirmative proposition thus expresses the coalescence of one term with another in thought, these terms being, not simple percepts, but concepts. More strictly, then, the copula asserts their connection or partial identity in thought, because of their coalescence in perception. Simple connection is thus the meaning of the copula; not equality; not identity; not existence. The reason is, that, Logic being a sifting and testing process, the judgments and propositions admitted into its forms must be *minima* of thought, the very lowest and simplest forms which can be found, not forms which pre-suppose and involve anything already known. To express existence by the copula, we must first know what the term *existence* means. Propositions expressing existence, therefore, form a special class called existential propositions. Again, propositions expressing equality or identity are not simple but double

propositions, convertible, two propositions in one. It is only a relation of greater or less in quantity, only a relation of partial identity in kind, that the logical copula can express. And this it does by a simple and direct application of the Postulate of Identity, *A is A*, to concrete percepts, turned by thought itself into concepts. *A* stands originally for any percept; and *A is A* only; well then,—*What is A?* Analyse your percept. State one of its features to begin with. We thus get *A is B*, yet without ceasing to be *A*. And *A is B* is the type of all simple categorical affirmation. In order to express the existence of the Subject, or its equality, or its identity, with the Predicate, the existence, equality, or identity, must be thrown out of the copula into the predicate; as, *A is Equal-to-B*.

We have already seen that the terms of judgments belonging to the second province of Logic are not simple percepts, but concepts. This is a most important point. Judgment is a continuation of the very same process by which, as we have seen, percepts are modified into concepts. And that is why predication, which expresses the connection of concepts, expresses also the coalescence of percepts, and necessarily speaks either in order of comprehension or in order of extension; or rather I should perhaps say, *speaks in forms which include both, but always intends either in one order or in the other.* Thus when we say *Men are rational*, what we mean is either: The comprehension of the concept *man* comprises something which also belongs to the comprehension of the concept *rational*, in other words, All men possess some mode of rationality; or: The extension of the concept *man* is comprised in the extension of the concept *rational*, in other words, All men are in the number of rational beings.

The ordinary phrase, *Men are rational*, clearly suggests the order of extension, and carries that meaning obviously on the face of it. Consequently Logic, which for its purposes is bound to adopt ordinary forms of speech, adopts along with them and explicitly uses the order of extension in categorical predication. This introduces quantification of terms and propositions into Logic, as, All men, Some men, This man; All mortals; Some mortals; This mortal; the concept *man* or *mortal* being supposed to remain unmodified all the time; which is really impossible, since every group of men or mortals differs also in point of comprehension and extension from other groups, and is thus in reality a new or modified concept.

A door is thereby opened to enriching Logic with a complicated mass of pernicious lumber, under pretext of developing it to its full limits as a science; as if its true aim were to construct a Labyrinth for the stowage of Statistics, and not, what it really is, to minimise its structures to the very lowest point consistent with efficiency in premonishing and criticising thought. As, for instance, by the naive

confession of Logicians themselves is the case with the Five Subaltern Moods in Figs. I, II, and IV,—(to quote lines which have since become famous on quite different grounds):—

“Quinque subalterni, totidem generalibus orti,
Nomen habent nullum, nec, si bene colligis, usum.”

Its most pernicious effect, however, is perhaps this, that it leads us to forget, that in all cases we are speaking of concepts, as, in the instance before us, of men only *qua* human, and thereby to neglect the essential maxim of substituting the Definition for the concept-name, in all serious reasoning. For always, whether we speak in order of extension, or in order of comprehension, we are speaking of concepts, and therefore whatever statement we make, the *intension* of the individuals spoken of, that is, their perceptual analysis as percepts, whether abstract or concrete, is what ultimately decides the truth or falsity of the statement. In this sense it is, that the truth of logical judgments depends ultimately on experience; this term properly meaning immediate perception. But it does not depend on experience in the sense which English empiricists put upon that word, meaning thereby the concrete objects of common-sense experience, thought as the particulars covered by the extension of a logical concept, and taken in that character as ultimate data; to the exclusion of the process by which perceptions, which are the really ultimate data, have been worked up and moulded into the concrete objects of ordinary life.

This latter process, which is always a reality, after as well as before the first formation of concrete objects in knowledge, and which has undoubtedly had besides a separate as well as real existence, in the infancy both of individuals and of the race, is necessarily governed by logic, being a process of thought; and thus it is that logical laws, which are laws of experience in its entirety, are not based upon experience in the English empiricist's sense; but that, on the contrary, experience in that sense is based upon them, as one of the forms which thought takes in moulding the ultimate data given by experience in its true sense of immediate perception. Experience in the empiricist's sense is the product not the generator of logic. Thought embodies the results of experience so far as it has at any time gone; nor will any but an empiricist profess that the judgment, *Men are rational*, implies that all the individuals, who have belonged and who will belong to the extension of the concept *Man*, have been examined, and found to possess the attribute of *rationality*. It is not so that logical judgments are passed, or logical terms formed; it is by means of perceptual analysis of perceptual data immediately

experienced, and moulded into conceptual form by acts of attention, on the part of those who frame or pronounce them, to those perceptual data.

A word or two must be said on the other forms of judgment and proposition selected by Logic, and first of the hypothetical, which is the only other main form of them, side by side with the categorical. A categorical proposition speaks of a single thing or event, its Subject, and states its intrinsic nature, by stating what it is or is not; a hypothetical proposition speaks of a relation between two things or events, and states what is or takes place outside one of them, the Antecedent, on the supposition of the Antecedent being or taking place; as, *If A is B then C is D*. There is thus no difference but one of form between the two classes of propositions; in fact, any statement which can be made in the one way can be made also in the other; it is simply a matter of convenience, both classes utilising forms of speech which are at once popular, exhaustive, and expressive of *minima* of thought. Things and Relations are an exhaustive division of experience. The interdependence of elements of experience is brought explicitly forward in hypotheticals, by assuming one distinct from another to begin with. And this interdependence is taken by them simply as a fact, parallel to the fact of intension or inseparability of elements in percepts, and is not assumed to rest on any law of *Ratio Suficiens*, Causality, or Uniformity, in Nature.

Moreover, it is important to remark that the interdependence spoken of is taken, in hypothetical propositions, as dependence only, that is as one-sided, not reciprocal. Were it reciprocal, it would not be a *minimum* of thought. It would then answer to convertible propositions in categoricals, which are really two propositions cowering grammatically under the cloak of one, as we have already seen.

To these two main forms of judgment two others are added, subordinate to each respectively, the Disjunctive and the Hypothetico-disjunctive. The former is adopted for the purpose of stating an exhaustive division of the possible predicates of a thing or an event, taken as the Subject of the proposition; the latter for that of stating an exhaustive division of alternative Consequents of a given Antecedent. The alternatives must belong to the consequent not to the antecedent, as otherwise the proposition would be double, that is, virtually not one but two. Between them these four forms sweep, as it were, the whole area of experience open to judgment, and sweep it in a sufficiently minute and exhaustive manner, without in any way depending, for their constitution as judgments, upon any particularities in the content of the experience.

VI.

Passing over the subordinate matters belonging to the second province, I proceed to the third and last. The third province of Logic embraces reasoning in its narrower sense of Inference. As the essential and cardinal feature of Conception is the reference of concepts to percepts ; and that of Judgment is the copula in categorical propositions, and the relation expressed by the form, *If—then*, in hypothetical ; so the essential and cardinal feature of Inference is the Middle Term in categorical syllogisms, and the nexus expressed by the Canons relating to antecedent and consequent in hypothetical syllogisms.

It must, however, be premised, that inference itself is of two kinds, mediate and immediate, an immediate inference being one which depends either upon the immediately perceived equivalence of the terms compared, or upon their immediate subordination to the Postulates ; and Syllogism embraces mediate inferences only. As an example of the first kind of immediate inference may be taken the equality of *B* to *A* as inferred from that of *A* to *B*; the perception of equality being double or reciprocal, as requiring the magnitude of two terms to be perceived at once ; and as an example of the second, the proposition, *No plants are animals*, as inferred from the proposition, *No animals are plants*. What we have, then, in an immediate inference is always a perception of what may be called opposite sides, or aspects, of one and the same thing. But only those pairs of opposite aspects are immediate inferences, one from the other, which involve no prior reasoning to establish the thing, or the relation, of which they are the opposite aspects, terms, or members. For where this is required, the prior reasoning supplies a reason or ground, usually in the shape of a definition, which mediates the inference and makes it possible ; as, if I know that *A* is father of *B*, I also know that *B* is son of *A*, but only because I have previously framed the conception of fatherhood, and established its definition as a relation between persons. In other words, immediate inferences, strictly so called, must be ultimate as well as immediate. It is with these cases only that we are not concerned in syllogism, since they fall back into the province of perception governed solely and immediately by the Postulates of Logic.

Mediate inference, drawn by way of syllogism, is that with which the third province of Logic is chiefly concerned ; being concerned with the ground or reason for the assertion of a judgment, different from either term of the judgment itself. The *Quæstio* or Conclusion of a syllogism is always a categorical or a disjunctive judgment ; and

categorical syllogisms exhibit the reason for passing this judgment in the form of a middle term or concept. The terms of the conclusion then coalesce with one another, because each coalesces with one and the same term, or (in order of extension) with one and the same part of that term. Thus, to take our former instance, we assert that *Men are rational*; Why? Because (1) they act from anticipation of consequences, and (2) so to act is to be rational. The middle term here is *acting from anticipation of consequences*. General propositions proved in this way can be used in turn as the major premisses of syllogisms; and thus the regress in search of middle terms, in proof of one major premiss after another, means continued analysis of one concept, or general term, after another, until the whole field of object-matter, relevant to the original question, has been explored and reduced to logical division, classification, and definition.

But categorical syllogisms with their middle terms are not the only way of proving categorical conclusions. Hypothetical syllogisms also conclude with categorical or with disjunctive judgments, as for instance: If there is a three days' frost, the ice bears; but to-day there has been a three days' frost, therefore to-day the ice bears. What is it in this syllogism which answers to the middle term in categoricals? Plainly it is the simple fact, that a three days' frost is followed by ice that bears, without any ground or reason for that fact being assigned. There is, indeed, nothing of a reason in the syllogism but the bare fact of the dependence of ice on frost, embodied in one of its Canons, namely:—Affirm the antecedent, and you must affirm the consequent. For the reason or ground of the dependence we must look elsewhere, that is, elsewhere than to this or any other hypothetical syllogism. The major premiss of the hypothetical syllogism is what really requires proof, that premiss stating the fact of dependence as a general truth, the minor merely stating that a particular instance of the antecedent term really occurs. Hypothetical syllogisms are thus precluded, by their form, from establishing any of those relations of dependence which they assume in their major premisses. One hypothetical syllogism cannot give the ground or justification for another, as is the case with categorical syllogisms.

We are thus thrown back ultimately upon categorical syllogisms in all reasoning directed to establish the grounds or reasons for inferences. To show, for instance, the ground or reason for a three days' frost being followed by ice that bears, would take us into the analysis of the phenomena concerned, by finding answers to the questions: What we mean by ice bearing, by frost, by the action of freezing in producing ice, and so on. That is to say, it would take us into an enquiry, the steps of which can be accurately expressed

only by a succession of categorical syllogisms employing middle terms. The reason of this fact itself is evident. It is, that the reason or ground of any fact, event, or connection of facts or events, must lie in their nature or *whatness*, and not in the mere circumstance that they exist or take place, or are as a fact connected with one another.

Not that in categorical syllogisms, or in their middle terms, we arrive at anything beyond or deeper than simple matters of fact, that is to say, at anything immediately perceived as a reason or ground, as well as a fact; which would involve the contradiction of a conceptual character, or "second intention," being immediately perceived. What we arrive at by the regressive analysis of a chain of syllogisms is the constant feature or features constituting things or events, or the constant set of circumstances, sifted out from others, under which they exist or take place; which analytical sifting gives us the law or laws of their existence or occurrence, and enables us to predict their occurrence in future cases. The features or circumstances so discovered in regressive analysis are what we call conditions, either proximate, intermediate, or ultimate, of the phenomena in question; that is to say, are conditions as distinguished from causes; this latter term always implying the contradiction of an immediate perception of the fact of conditioning *per se*, or in other words, of the causal character of that which we discover to be the condition of something else. The term *condition* expresses the fact of a perceptible relation between two or more things; the term *cause* expresses a non-perceptible character in a single thing.

What I have just said brings me, in conclusion, to the last point which I propose to mention, a point closely connected with what was noticed at the outset, that the aim or purpose of Logic was not simply to reason, nor even to reason well, but to test the validity of reasoning, by a return upon itself, and a reference to its own laws. What I have now to mention may be regarded as a consequence, or if you will an allied form of that earlier statement. It is this, that Logic in its processes, syllogism included, is not directly engaged in discovering facts or laws of Nature; that is to say, is not a Method of Discovery. Logic is Thought engaged, not in following the Proteus-changes of Nature, but in watching its own steps in following them. In every syllogism it asks *what we mean* by this or that objective thought of our own, and finds the answer always in experience, that is to say, in immediate perceptions of our own. The objects thought of, and their objective laws, which we call Nature, are no doubt the ultimate object-matter of the process; but then again, we know that they are so only through and by our own objective thoughts and perceptions. We cannot, in Logic, assume any fact or law of

Nature, not even the Law of Causation, or the law of Uniformity, without a warrant in our own objective thought. In other words, we cannot logically make such a law the ultimate basis of logical thought. This would be to fall into the well known fallacy of *a priori* speculation, a fallacy of which Kant and German Idealists are far indeed from being the only persons guilty.

You see, I doubt not, to what point I am tending. Induction is a Method of Discovery, and one which is founded, sometimes avowedly, on the assumption of the Law of Uniformity. A method of discovery involves starting with some hypothesis as your guide, were it only the most abstract and general of all hypotheses, the law of uniformity. Discovery without hypothesis is not method but simple analysis, perceiving and noting what is offered, without any guiding determination on the part of the percipient. It follows that Induction, though perfectly valid as a reasoning process, is not Logic, nor any part of Logic. *Inductive Logic* is a *Round Square*. For the inductive reasoner must appeal to the analysis of experience governed by the Postulates of Logic to furnish his ultimate basis of induction, the Law of Uniformity. Inductive reasoning, in thus taking its ultimate hypothesis from experience guided by Logic, does not thereby become Logic, but remains simply reasoning belonging to some science, or other branch of knowledge, according to the kind of object-matter with which it deals. Nor does the fact, that inductive methods can be classified and reduced to a general system or theory, suffice to show the identity of that general theory with Logic, which is a theory or system of a special kind. Precisely the same must be said of deductive reasoning and deductive logic, wrongly so called. Both induction and deduction are Methods of Reasoning ; Logic is analytic simply, its laws, which are necessarily involved in both, resting solely on the Postulates, which are themselves not merely Postulates but Axioms, discovered by immediate perception, and involved in every exercise of purposive attention.

Nor can the inductive reasoner by any possibility establish his requisite basis of hypothesis by the method of induction itself. Induction is legitimated as a method of discovering particular laws of nature solely by bringing them under the Law of Uniformity, established in the way above indicated. And it is plain that induction cannot by itself establish the Law of Uniformity, because the only way to do so is by way of syllogism, and no induction pure and simple can be thrown into the form of a valid syllogism. The fact that it cannot is demonstrable by the attempt, and failure of the attempt, to do it ; a demonstration virtually given by Aristotle himself.

Aristotle exhibits induction pure and simple in syllogistic form,

thereby showing its invalidity as a syllogism. He defines it as "proving the major term of the middle by means of the minor,"* instead of proving the major of the minor by means of the middle; that is, in other words, proving the major premiss of a syllogism, without travelling beyond the terms of the syllogism itself. Suppose, for instance, we have this syllogism in *Barbara*:

All compound bodies are liable to dissolution,
All oysters are compound bodies,
∴ All oysters are liable to dissolution.

The major term here is *liable to dissolution*, the minor *oysters*, and the middle *compound bodies*. Changing this into an inductive syllogism, the major, *liable to dissolution*, would be proved of the middle, *compound bodies*, instead of being proved of the minor, *oysters*; and the new or inductive syllogism would run as follows:

All oysters are liable to dissolution,
All oysters are compound bodies,
∴ All compound bodies are liable to dissolution.

And what this would apparently prove would be the major premiss of the former syllogism; but this it would prove only by the assumption, that *oysters* and *compound bodies* are at the least convertible terms, an assumption not only quite unwarranted by observation, but, what is here more to the purpose, inconsistent in the place where it stands, with the logical laws of predication and syllogism.

All that this inductive syllogism can prove is that some compound bodies, namely, *oysters*, are liable to dissolution. In other words, we have not moved a step farther than the point at which we stood with our major and minor premisses taken separately. No third truth, and certainly not the major premiss of the original syllogism, results from them. Consequently, by throwing pure and simple Induction into logical form, we have shown that it apparently yields new truth only by the violation of logical law, and therefore forms no part of Logic, however valuable and valid it may be as a mode of reasoning resting on hypothesis supplied from elsewhere. Induction at any rate must therefore abandon its claim to share our sick man's inheritance. Let us hope that this abandonment will not be without its beneficial effects, but that it may even contribute its quota to revive the drooping energies of the sick man himself, *in propria persona*.

* Mansel's rendering. See his account of the Aristotelian Induction in the Appendix to his edition of Aldrich, in which he in turn refers to Hamilton. What I am now doing is merely drawing the conclusion necessitated by this account of the process. The passage of Aristotle referred to is *Anal. Prior.*, Book II., chap. 23.

THE AESTHETIC THEORY OF UGLINESS.

By BERNARD BOSANQUET, Vice-President.

My object in this paper is to search for what I will provisionally describe as real ugliness, understanding that its existence is open to doubt. I mean by it such ugliness, if any, as cannot by a healthy and normal æsthetic perception be treated either as a species or as a factor of beauty. On the other hand, what I shall call, for the present, apparent ugliness, I take to be the quality of such perceptions or imaginations, as although shocking or puzzling on a hasty view or to untrained perception, are yet to a normal æsthetic judgment either species or factors of beauty.

In order to clear the way for discussion I must make one assumption, and give two explanations of my use of terms.

The assumption is that for every content presented to fancy or perception there are limits of normal æsthetic appreciation, which, although including considerable variety of view, yet exclude certain other forms of appreciation as objectively morbid or distorted. I give one example to explain my meaning. Ruskin says without hesitation, among thousands of similar judgments, that the peculiar beauty of the cedar tree lies in the spreading surfaces in which the foliage is arranged, giving a distinctive appearance, which I need not commit myself by analysing, to this particular tree. I do not think that anyone, exercising his observation, would deny that this is a fair and normal perception, and that perception of this kind can be distinguished as æsthetically objective from a more partial or capricious perception as æsthetically subjective.

This assumption is essential to discussing æsthetic matters at all, because without it you cannot ascribe æsthetic quality as a fact to any given content or presentation. Of course variety of æsthetic perception according to context and standpoint is not excluded, any more than variety of scientific truth is excluded, by this assumption of objectivity. In technical language it is the assumption of the objectivity of the æsthetic judgment.

As an explanation of my use of terms, I have first to speak of the risk of confusing two very different antitheses. One of these is the antithesis between the beauty of Nature, and the beauty of

Fine Art, and the other is the antithesis between nature, or the natural, and man with his works, or the artificial. The former I hold to be an incorrect antithesis so far as concerns the general theory of beauty. In it, Nature stands for the whole content of the world, including man and his works, as perceived by the ordinary æsthetic apprehension; while Fine Art consists in this same material as æsthetically perceived and reproduced by the genius of the artist. Therefore this antithesis has on its two sides the same material in a more and less heightened form respectively. The æsthetic quality of Nature is the same as the æsthetic quality which is Fine Art. And one practical reason for insisting that this antithesis makes no real opposition is that in discussing beauty for philosophical purposes we are constantly forced to consider it in the shape of Fine Art; but this is not, as one hears objected, to disregard the beauty of nature, but is strictly analogous to our discussion of natural facts by the light of science. We refer, in both cases to the recorded perceptions of those who perceive best, both because they are the best perceptions, and because they are recorded. Of course in one case as in the other we must interpret and correct the recorded perceptions, so far as we can by our own.

The other antithesis, that between the natural and the artificial, or between Nature and man with his works, including history, limits the meaning of Nature much more narrowly than does the first antithesis; and this often gives rise to confusion, as when people take nature to mean landscape or scenery—something opposed to history—and complain that in treating beauty as it is in fine art you are omitting the beauty of landscape. Of course, on the contrary, our sense of the beauty of landscape came to us entirely from the great landscape painters and descriptive poets. The blunder arises from confusing this second antithesis with the first, from confusing the opposition between natural and artificial, between one part of the actual world and another part of the actual world, with that between the beauty of nature, that is, the beauty of the whole world, and the beauty of fine art, that is, the heightened perception of the beauty of the whole world.

But it is true, that in the second antithesis, that of natural and artificial, fine art does fall, with many other activities, under the head of the artificial, that is, of things done by man with a purpose. And we *may* find that this opposition does bear upon the issue of our enquiry; that is to say, that the artificial world of man, and fine art as a portion of that artificial world, may have capacities of ugliness which are not possessed in the same degree by the lower or purely natural world.

And secondly, it is necessary to explain that I intend to use the

word beauty as the name of that essential quality by reason of which we value the productions of fine art. If, as I think will prove to be the case, this meaning is much broader than that which we commonly assign to the term, still it will be found convenient to retain the familiar expression with an extended signification. The narrower conception of beauty will be found, on analysis, to present no distinct boundary such as to prevent it from extending into that which is thus proposed.

Thus I mean to take fine art for our guide as presenting both the best and the most tangible perceptions of beauty; and I propose to take as a starting point this fact to which I have alluded of a certain extension which we perceive to take place in the idea of beauty, both popular and theoretical. For, with this extension, something akin to ugliness appears within the field of beauty, either as actually a species of the beautiful, or as a factor in examples of the beautiful. After having considered this phenomenon, which may be identified with what we called at starting apparent ugliness, we shall be in a better position to suggest what, if anything, must be that real ugliness which can never in any sense be a species or factor of beauty.

Before saying a word or two on the history of fine art, let me venture to appeal to our ordinary experience, which shows us, I think, the phenomenon I wish to make clear, in our own personal aesthetic education. Putting aside, so far as we can, persons of exceptional qualifications, for whom the tardy process of education can hardly be said to exist, is it not true that most of us begin our aesthetic life with ideas of the beautiful somewhat cognate with the sweet (metaphorically speaking) and the pretty, and that our perceptions are opened with some little difficulty to beauty of more austere or more complicated types? Is not the Apollo Belvedere appreciated a year or two before the Theseus of the Parthenon, and the Venus di Medici before the recumbent goddesses of that same pediment? Or if we have gathered our first ideas of pictorial beauty from Sir Joshua Reynolds' ladies, do we quite readily recognise the same aesthetic quality in Holbein's or Rembrandt's men? And in poetic art we have surely the same experience. Much has to be read and felt, and much insight won, before the Cerci, or Dante's Inferno, or King Lear, can plainly and honestly be ranged under the predicate of beauty.

Just two points must be noted as partial limitations of this remark: First, the idea of beauty develops from several centres; the piquant, the striking, and the distinct appeal to us at first as much, and in as immature embodiments, as the sweet and the pretty. The extension of the idea of beauty is partly effected by bringing together these various points of departure.

And, secondly, there are works of art, among the very greatest, which fetter all minds from the first and without previous training; but it may be pointed out that these are usually such as have not passed beyond sweetness, although they have attained depth of characterisation. Familiar instances are the Venus of Milo and the Sistine Madonna.

I think we see enough to suggest that with the progress of æsthetic experience the idea of beauty undergoes a very considerable extension and transformation in a direction from the charming towards the strong.

A similar extension and transformation is visible in the fine art of the world, and is recorded in æsthetic theory. Of course, this evening I can only say a word or two on the subject.

No doubt if we take in barbaric formative art, and the earliest known stages of Greek formative art, we should find ugliness from the very first unmistakeably established within the frontier of artistic beauty. But this is not germane to our purpose, because this ugliness is antecedent to the development of fine art as such, and arose only in the struggle to produce beauty, not as a part of beauty when produced.

If we begin with the real starting-point of æsthetic progress, the formative art of Greece in the great time, we find that it remains on the whole within what might be called an easy or charming type of beauty, of which the Venus of Milo might be taken as a specimen. Even such a statue as the portrait statue of Demosthenes, though by no means in the likeness of an Apollo, is not very difficult to connect with the Sophocles or the Pericles, in which the sweeter kind of Hellenic beauty may still be traced.

If, however, we include poetic art in our survey, then we find in the *Odyssey*, for example, and in the *Agamemnon* of Æschylus, and in the *Eirene* of Aristophanes, enough to strain our narrower ideas of beauty very seriously even at starting. And then looking back again from Greek poetry to Greek formative art, we see by the light thus gained that it is impossible really to do justice to the principle of Hellenic beauty by forcing it into the mould of noble simplicity and calm greatness.* The frieze of the temple of Apollo at Phigaleia, which ought to be better known than it is, shows how the passion and pathos of the fiercely emotional Hellenic race was capable of finding its way to the surface even in plastic art. And so Schiller, writing to Goethe, in a passage which I shall translate in full below, says that it is ridiculous to try to do justice to Homer and the tragedians by help of the current conception of Greek beauty as devoid of expressiveness and character, and condemns the whole attempt to banish the characteristic from the region of Hellenic fancy.

* Winckelmann, according to the *Encyclopædia Britannica*.

We must admit, indeed, that apparent ugliness in literary creations rightly counts for less than in plastic shape, because what is only narrated in words is so much less vividly realised, otherwise we might fairly set down some gruesome visions of Cassandra in the Agamemnon as the ugliest fancies in art outside Dante's Inferno.

And thus make what excuses we may, Greek poetry is enough to give us plenty of trouble, if we seriously mean to include all great art within our formula of beauty. Greek sculpture, however, in its more splendid specimens, such as we chiefly know, does remain, on the whole, within a narrower sphere of the beautiful. What we might have thought of Greek painting, which the Greeks valued quite as highly as their sculpture, it might perhaps be better not to enquire too closely. Even the frieze of the Parthenon, as it really existed when complete, with its metal bits and headgear, and with some application of colour, might have appeared to us terribly wanting in true Hellenic repose.

If we now turn to mediæval art, there is no room for doubt. Even in pictorial creations, not to mention Dante, we have not only plenty of what one would *prima facie* describe as ugliness, but we find, before the time in which decay was beginning to set in, very little indeed of generic human beauty. I need hardly quote Mr. Pater's well-known judgment of Botticelli, as an example of what I mean: "The abstract lines of the face have little nobleness," and so on. But with all its devils, and its agonies, and its starvation, this romantic or Christian art had expressiveness: and such expressiveness that the most ardent of humanists will admit that it transports him into a new world of beauty higher than that of Greece. The human face, with which the Greek sculptor could do nothing till long after he had mastered the generic beauty of the figure, is, in the rudest Christian art, significant of spiritual passion.

And I may point out also that in the slow development of the new world of beauty the great unconscious art of the western nations, popular or decorative art, had co-operated with Gothic architecture in rendering the whole material aspect of life expressive and characteristic through and through. This expressiveness was not always or merely graceful; it was also, with an immense variety, humorous and grotesque. And I should imagine that Gothic architecture itself must be considered rather as inspiring and significant by its constructive organisation, than as beautiful in that limited sense in which a Greek goddess is beautiful.

Thus, when a free philosophy opened its eyes in the modern world, it had before it, in art as in other provinces of life, a material very different from that which had lain before Plato and Aristotle, or even before Plutarch and Plotinus. In the first place, the more

recent or Christian world of beauty, the creation for the most part of the Dark Ages, had in itself an immense amplitude and variety of content, and in the second place the whole recognised system of beauty had now a long history of more than two thousand years, obviously dependent upon phases of human life and culture and religion.

Such actual variety and evolutional history are in every sphere of thought the conditions which drive home the lesson of relativity, which, therefore, is essentially modern; and which, of course, does not imply irrational variability, but just the reverse, that is to say, a definite connection between definite phases of existence.

I will not now attempt to assign the respective shares of philosophy and of art-scholarship in revealing the rational relativity of beauty, and through it of knowledge and morality, especially as I have treated this subject at length in a former paper. It is enough to point out in general that the conception of relative or relevant variation in the sphere of artistic expression, even if at first explained simply with reference to changes of fashion and of taste, leads sooner or later to a consideration of that which is to be expressed—the import or significance—as at least a principal determinant of the value of expression.

And thus the point of view of the characteristic, naïvely suggested by some among the Greeks, and adopted in fantastic forms by mediæval artists and thinkers, was consciously formulated in the last ten years of the 18th century, a time at which in so many ways the distinctively modern consciousness may be said to originate.

The question seems to have presented itself to Goethe and his contemporaries in the form, "Can we honestly say that modern art (*i.e.*, Christian and romantic art) is *beautiful*" or "that beauty is the principle of modern art?"

Friedrich von Schlegel, writing in 1797, and defining beauty as "the pleasant expression of the good," and ugliness as the "unpleasant expression of the bad," feels himself compelled to answer this question in the negative. He says, as I understand, that the principle of modern art may be the "interesting," or the "characteristic," or the "philosophical," but the *beautiful* it certainly is not.

This treatise is said to be the first which deals with the problem of ugliness as of importance for the explanation of beauty. It is worth mentioning, however, that both Kant and Schelling deal with the sublime as outside the beautiful, thus recognising, to begin with, a dualism in the theory of fine art. For, is the sublime beautiful, or is it not? Some of the earlier explanations of ugliness tended to connect it with the sublime.

Schlegel seems to have been contrasting Greek art as "beautiful" with modern,* that is, Christian or romantic art, as "interesting;" but this opposition of course could not be durable. Either the beautiful and the interesting must both be species of some higher genus, or else the one must include the other. Besides, as we have seen, Greek art and modern art are not in fact so wholly different, that different fundamental theories of the two should be possible. Accordingly Schiller, writing to Goethe in July, 1797, presumably with reference to Schlegel's work, censures modern *Aesthetic* for this distinction and its consequences. I quote the passage at length, because it is an important datum in the history of the question.†

"I fancy that this would be the right moment to pass in review the works of Greek art, in the light of the idea of the characteristic; for Winckelmann's and Lessing's conception is still generally prevalent, and our most recent writers on æsthetic, dealing with poetry as well as with sculpture, take endless pains to liberate Greek beauty from all traces of the characteristic, and to make this latter the distinctive mark of modern art. I think the recent æsthetic writers, in their struggles to separate the idea of beauty and present it in a certain purity, have pretty nearly hollowed it out, and turned it into an empty sound. The opposition between the beautiful and the correct or true ['Treffende'] has been pushed much too far, and a demarcation which only the philosopher is in the habit of making (and which is only justifiable in one aspect), has been accepted far too coarsely.

"Many, again, make another kind of mistake, in referring the idea of beauty far too much to the content of the work of art instead of to the treatment of it; and then of course they must be puzzled when they have to comprehend under the same idea of beauty the Apollo of the Vatican and other figures like it, of which the content is enough to make them beautiful, with the Laocoön, or a Faun, or other painful or ignoble representations.

"As you know, the same is the case with poetry. How people have toiled and are still toiling to justify the crude and frequently low and ugly realism ['Natur,' the natural facts, whether of man's behaviour, or of other kinds] of Homer and the tragedians, in consonance with the idea they have formed of Greek beauty. I wish some one would at last venture to dismiss from circulation this idea

* In another sense, modern art began in Shakespeare, and is opposed to mediæval art.

† "Briefwechsel," 3, 158. Schiller to Goethe, July, 1797.

and the word beauty itself, to which all those false notions are, in fact, inseparably attached, and, as is reasonable, to set up in its place *truth* in the completest sense of the word."

Here we have the whole question raised. Beauty is too narrow a conception even for Greek art; the principle of fine art must be called by some such name as "the characteristic" or "the true," and no subject-matter must be excluded because it is painful or ignoble. Schiller seems even to suggest that beauty may be a question of treatment only, and consequently not exclude any matter at all. But, of course, even so the treatment must be relative to the matter.

However, as a mere question of language, we mean to keep the name "beauty" for the general quality which we prize in fine art, whatever that may be, and modern usage, even that of Schiller in his theoretical treatises, confirms this as the convenient course.

But in extending this conception of beauty to cover the whole field of artistic expression, we must expect to find, as Schiller implies, that a good deal of ugliness falls within it. Such ugliness, which falls within beauty either as a species or as a factor, I said at first that I meant to treat as apparent ugliness. And our question is, whether, having allowed for all apparent ugliness, we shall find that the world has left in it any real ugliness.

Such a question, however, is not stated all in a moment, even if it can be said that it has been completely stated at all. The earlier successors of Schlegel, in dealing with this subject, seem all to assume the existence of ugliness as an æsthetic quality of the world, outside beauty and opposed to it, although they progressively recognised that ugliness can exist within beauty as a factor subordinated to it. Thus they believed, as I suppose most of us do, both in true ugliness and in apparent ugliness. The peculiar Hegelian phrase, "aufgehoben," which I cannot render by any single English term, plays an important part, and on the whole a useful one, in this evolution. It literally has the two meanings, "destroyed," and also "preserved," or "kept safe;" there are analogies in English idiom for the combination of these two significations, as in "put away," but no equivalent that I know of. It was applied by Hegel to any factor in a whole which by becoming such a factor loses its independent significance, but gains a further significance which includes and depends upon the former. I suppose the individual is thus "aufgehoben" in society. I am inclined to think that this characteristic Hegelian usage was suggested or encouraged by the 18th of Schiller's letters on "Æsthetic Education," published in 1795 or 1796, in which the word occurs in a strikingly analogous context.

The position of an element, which would be ugly if isolated, as a

subordinate factor in a beautiful whole, is described in many æsthetic systems by this Hegelian term, and the description is not unintelligible. The view thus indicated tends to come more and more into prominence, and although, so far as I know, the existence of real ugliness is never denied, yet the region of apparent ugliness, or ugliness subordinate to beauty, is constantly being extended so as somewhat to encroach upon the other. The great organ of this extension is the definition of beauty as the characteristic, because it is as a means to characterisation, that what would *prima facie* be ugly is alleged to find a place in beauty; and two of the most recent and competent æsthetic philosophers (Schäfer and von Hartmann) have pronounced that this is the theoretically normal condition, viz., that ugliness of one stage or level should be a necessary element in beauty of the next higher stage or level. By "stage" or "level" they seem to mean degree of complication, or concretion, as they call it. For example they hold that deviations from the generic human type, which is roughly identified with the Greek type of beauty, are natural or even necessary for that individual characterisation, which is requisite for the full expression of individual human beauty: and that this individual beauty, obtained by means of a relative ugliness or sacrifice of generic beauty, is more beautiful and belongs to a higher æsthetic stage or level than the generic beauty which is sacrificed to obtain it. The lower, or generic, ugliness, is thus necessary to the higher or individual beauty. That is a fair illustration of what may be called the doctrine of ugliness as a factor in beauty.

I do not myself think that this view is precisely true in fact, or that it entirely meets the problem set by the phenomena. It is supported by the obvious truth that some elements of simple beauty are sacrificed in beauty of higher orders, together with the apparently strong analogy of music for the idea that a positive æsthetic unpleasantness may be advantageously applied in a concrete work of art. This particular case of dissonance would demand a longer discussion than I can devote to it. I doubt whether it makes for the view in question so strongly as is supposed.

It is unquestionable, however, that in symmetrical decoration we sacrifice the beauty of simple repetition, in the subtle balance of a picture we sacrifice exact symmetry, and so on. But perhaps it might be said that symmetry satisfies the desire of repetition and something more, and that the balance of a picture satisfies the love of symmetry and something more. It may be doubted whether such a resistance or self-contradiction as could be called positive ugliness can really be made out in this way. It is undoubted, on the other hand, that what we should call a positively ugly face with a noble or spiritual expression may be peculiarly fascinating; and in this case we

have positive ugliness, apparently contributory to beauty. But is there any reason why such a face should be more individually characteristic or more beautiful than the face of Goethe or of Pericles, in which the noble expression issues from a structure noble in every detail? Carriere takes such objections as these to Schasler's view, and I think with justice. Ruskin indeed, speaks of the combining imagination as distinguished by the power of creating beauty by the combination of two or more uglinesses; and *something like this* no doubt is the case. But the theoretical question seems to turn on the nature of the abstraction by which the parts of a beautiful whole are dissociated for purposes of analysis. Perhaps it may be admitted that every strong and definite expressive element is potentially ugly, as potentially beautiful. That is to say, it is such as in isolation, or in the wrong context, would be self-contradictory, or would create a contradiction. A leaning figure becomes painful if you take away the thing it leans against. But that seems hardly fair analysis; you must credit every element with some normal or natural context. Thus all that is necessary, is, perhaps, that the elements of beauty should be definite and different; not that they should suggest, as the ugly face does, a subordinate totality, which as a totality, is self-contradictory or distorted. Such a totality, which does of course occur, is a case at least of apparent ugliness, though it certainly may be resolved into beauty by being made expressive of character. I still do not see that it is the preferential case, and that all characterisation must avail itself of ugliness, or that ugliness is the negation or difference involved in the positive evolution of beauty.

Thus I do not think that the view in question is necessary in explaining normal beauty, while it rather slurs over the difficulty connected with extreme cases of apparent ugliness.

We are all prepared, with some degree of carelessness, to admit in one way or another that ugliness or discord, as we call it, may enter into artistic beauty; but the more striking fact seems to me to be that beauty enters into, and is the very medium and texture of, those contents or presentations which, not as parts but as wholes, tempt us at first to pronounce them ugly. Let us think of Leonardo's Medusa, Watts' Minotaur or Plutus, Velasquez's Philip IV. (I suppose one of the very finest portraits in the world), Browning's Childe Roland or the Spanish Cloister, Balzac's La Cousine Bette, or Les Paysans. Now the elements of these works are splendidly beautiful, with the highest degrees of decorative beauty, and this is so throughout with the more complicated and difficult works of art. Their complication gives more, and not less freedom, in the use of decorative accessories. A book has been published simply reproducing the patterns on the dresses in the great pictures of our National Gallery. The details in

these cases are beautiful throughout; it is the effect of the whole that strains our idea of beauty.

Thus I incline to think that the idea of ugliness as a species of beauty, or cognate with beauty, has been too easily dismissed in favour of the view, which no doubt has deeper significance, that ugliness can only enter into beauty as a subordinate factor. The two may perhaps be reconciled if it is clearly understood that subordination in the philosophical sense does not imply being quantitatively merged or depressed into insignificance. The comparison with mere dissonance is, I think, misleading; the position of apparent ugliness in King Lear, or Childe Roland, or Dante's Inferno, or Watt's Minotaur is deeper, I imagine, than that of dissonance in music, and corresponds rather to an apparently ugly musical form; I do not know how far such a thing is possible.

We must then consider that subordination of ugliness as a factor in a beautiful whole does not merely mean that unpleasing form may be required in this or that detail, but it may mean what I may call, for want of a better phrase, a *formal* subordination. That is to say, the just and healthy appreciation of what is at least apparently ugly must have the power to subordinate it to beauty *by the mere mode of representation*. And the point of this mode of representation would be not in disguising the ugliness under a fraudulent show of common beauty, but in characterising it straightforwardly and expressively in respect of its ugliness. By the force of characterisation the details will become beautiful, while by the truth of characterisation the whole will be relegated to its due and proportionate place in a healthy view of the world. This leads up to the suggestion, which seems to me, as I have indicated, to strike the weak point of Schasler and von Hartmann, that not mere difference, force, variety, or negation is ugliness, but only such difference or negation as sets itself up to be something greater than it is, viz., to be a positive and self-complete existence. I suggest, then, that if you perceive or paint (it is the same thing in theory) vice or madness as vice or madness, this true and forcible characterisation of their at least apparent ugliness may give them, though apparently ugly, a place in beauty. If you painted vice as virtue, or madness as sanity, the falsehood would create distortion in your details, which would betray your confusion of view, and the fraud would give real ugliness to the whole work, which would present a simulated appearance of common beauty. Dore's works, especially the more sentimental ones, seem to me, as a rule, perfectly hideous from this point of view.

This would explain why, on being asked "Is Velasquez's Philip IV. beautiful?" people reply, "The man is not beautiful, but the picture is beautiful." That is not merely because of the skill of

the execution; such a view, though capable of explanation, would be extremely inadequate; but because it is the man seen in a true light.

However all this may be, the connection between apparent ugliness, and beauty, has so far extended itself in harmony with the notion of the characteristic, that theory and practice now set no limit on the ground of perceptible ugliness to the content of fine art, *i.e.*, to the perception of æsthetic value. And we have arranged throughout that æsthetic value is to be called beauty. Within beauty, in this extended sense, we now reckon innumerable types of presentation, which not only a Greek would have called ugly, but which we are very much tempted to call ugly ourselves.

But then, if this is so, and if the definition of beauty is to be somewhat of this nature, "the characteristic expressiveness of a presentation for sense-perception or for sensuous fancy," omitting the qualification "pleasant," which must be compensated for by attention to the more general laws of symbolism or expression, then how can there be any real ugliness? Is not everything, when you appreciate it rightly, expressive of itself, and so, characteristically expressive, and so, beautiful? Ruskin has written a most telling analysis of the truth of a bank of earth, and there is no question, I suppose, that to the eye which can discern its formative characteristics such a bank of earth is beautiful. The recognition of such beauty as this is, I think, a real advance in theory, following, of course, upon an advance in artistic practice. Only, then, how are we to answer our question? Is not every perceptible form characteristically expressive of something, and, if so, how can anything be ugly?

There seems to be two possibilities which might furnish answers to the problem. The presentation may be expressive, but not characteristically expressive; it may even be fraudulently or falsely expressive. This possibility depends on the existence, in the world, of individual character as a fact. And, secondly, a presentation may be characteristically but not completely expressive; this depends on the hierarchy of general references and symbolisms, which are involved in the details of every fancy or perception, over and above its leading or individual import. It may be, then, that what is expressive, but not characteristic, or what is falsely characteristic, is really ugly; that what is characteristically but not completely expressive is austere, or naïve, or rude; and that only what is truly characteristic and fully expressive, *i.e.*, endowed with all permissible expressiveness (symmetry, colour, grace of curve, nobility of language, and so forth) can be called fully beautiful. The two first cases are not, however, co-ordinate. The austere, naïve, or rude, so long as they are truly characteristic, are species of beauty, and are, at the worst, in some cases apparently ugly; the expressive which is not charac-

teristic, or which is falsely characteristic, is truly ugly, and falls outside beauty. It is the latter species we now desire finally to hunt down.

I wish to review the range of our presentation in a hasty exploration after this true or real ugliness.

1. Inorganic Nature.

One writer lays down that the characteristic of inorganic nature is to be subordinate to life, and therefore a desert, or wilderness of rock, is ugly—uncharacteristic. I do not think we should venture to confirm this judgment. No scene of inorganic nature, untouched by man, seems normally ugly to us now. A bank of earth, or a rock face, or a flow of water, is beautiful to the trained eye which catches the controlling lines and significant colours.

2. Organic nature, not including man. In judging this we must give it context, or our view is not normal. We must not judge a fish out of water. I take some suggestions in order.

a. Are there ugly species? I will mention two suggestions about this.

(1.) "Species are really ugly that have a structure which symbolises a preponderance of mere animality in the life, as a beast which is all head and jaws, say an alligator." I deny the fact of the alleged ugliness, and I do not believe in the reason. Why should an animal not show animality?

(2.) Species which manifest adaptations obviously in contradiction with their fundamental structure. It is an interesting observation, if true, that such species are chiefly found in continents that have little variety of life, and therefore little competition. The inference is that they would be killed off if the competition were sharper. Such are birds that can only use their wings to swim; we might add Chinese ladies who cannot walk with their feet.

I do not think that this can be a distinctive case in theory, because all creatures, I suppose, are built up of contradictions in this sense, and very clumsy contradictions too. All our food passes over the top of the windpipe; I imagine this must mean that the structure we inherit is not fundamentally adapted to our way of feeding and breathing. However, if such a maladaptation were external, and forced itself on our notice, we should think it ugly, as a sensuous reflex of the self-contradictory or illogical.

(3.) It is just worth noting that if a positive bad will could be supposed in nature below man, which seems not to be good sense in any case, its products are not ugly but splendidly beautiful, viz., poisonous plants, snakes, carnivora.

(4.) I add another observation about animals in pictorial art. Out of art they seem exceedingly beautiful; in the heightened

beauty of art they are apt to be failures, I think, for the reason that their unity or character, while not capable of spiritual expression in itself like that of man, is yet too centralised to be subordinated to a spiritual thought or symbolism in a larger whole. Thus you must take them just as they are, and cannot put much into them.

β. Are there ugly individuals—ugly, I mean, for reasons independent of those, if any, which cause species to be ugly? We are inclined here at least to say Yes; individuals are ugly when distorted, disfigured, dying. But let us be clear. Every individual is more or less modified by interference from without, and that not perfectly regular or symmetrical interference. Some of the early writers seem to imply that only a normally developed individual, such as a symmetrically developed tree, could be beautiful. This is clearly wrong according to modern æsthetic perception; we all agree with Ruskin in expecting a tree to show originality or humour, or resisting power, which qualities imply some type of disfigurement. So the question is, *What disfigurement is ugly?* Disfigurement by the intentional activity of man, some would say. I think I can justify this suggestion below, by a special principle; but we must be all quite clear that interference is interference, whether by wind, or fire, or landslip, or the hand of man. We might say that disfigurement ought to be ugly when it contradicts the individual character without giving it an opportunity for self-manifestation. Vegetable decay is beautiful, animal is ugly; is not that so? The fundamental reason might be that the one is a continuance of the same kind of life; the other is a resolution into a much more contradictory life. Mutilation of one animal by another animal is certainly ugly. I suppose this is the flat contradiction of the individuality, which so peremptorily demands life. A tree, broken by another tree, is not necessarily ugly. I think we must admit then that interference from without may disfigure individuals in a way that is really ugly. But the degree depends on the sharpness of the contradiction, and this on the individual claim for self-centred vitality, together with its want of power to overcome by further significance a defect in the machinery of life. A wounded animal is almost certain to be ugly; the dying Nelson is heroic. A simulated completeness, too, is here as always the worst ugliness; a deformed limb is uglier than a mutilation.

3. The works of man. The common opinion is that all nature is beautiful, as opposed to man and his works, the natural as opposed to the artificial. Why? A landslip may cut off the covering of a bank, and leave it as truly straight and as bare as the side of a railway cutting.

Perhaps there is the principle of collision concerned, as in the case of animals in fine art. Man's purposes are abstract, and persistently abstract. Nature may imitate such a purpose for an instant, but her imitation soon vanishes; man maintains his abstractions by his will. The cut left by the landslip will begin in a few hours to assume the beautiful curves of a bank of earth. The side of the railway cutting is not allowed to do so; if it falls away navvies are sent to straighten it. And therefore it may be that man's works and interferences with Nature are not so much ugly *per se*, in respect of their geometrical form, as incapable, by reason of their obvious singleness of purpose, of harmonising with the very complicated expression of their natural surroundings. I do not quite see why a gasometer's shape should be thought ugly in itself, being a cylinder with a gently curved top, but it may be quite impossible to find any unity between this abstract shape and its complex or random natural surroundings. It is much the same thing in other words to say that the abstract shape excludes all secondary expressiveness—the expression of form or colour. A machine-made utensil, if fit for its purpose, has a general characteristic form, but all further expression of shape as related to life is excluded. If its form is *not* suited for its purpose, or if it has pretended but unexpressive, i.e., machine-made, ornament, then it is ugly in a real and positive sense. Otherwise it is only deficient in beauty, not positively ugly, except by its tending to clash with surroundings. Thus a pretty, but ill-built and unhealthy house, has secondary expressiveness, but is not characteristic; an ill-proportioned and plain but well-built and healthy house, has characteristic expression, but not secondary expressiveness. Strictly speaking, the secondary beauties of the bndly-built house ought to be taken not as mitigating, but as enhancing its ugliness, as a positive fraud; *unless* it could be claimed that they implied nothing about its value as a dwelling house.

4. With Man himself the existence of genuine individuality, and want of individuality, and false or simulated individuality, seem obvious. It is in his false individuality, in the adoption of a needlessly partial purpose as the whole of life, that real ugliness must be looked for, because it is here only, in man, that we find the positive negation, or pretentious self-contradiction, in an unmistakeable shape.

A bad face is ugly, not because it is limited, or partial, or has traces of passion, but because it shows that narrow motives or passions have mastered the man, and made the part into a parody of the whole. Here, at last, in man, or to some extent in his useful or mechanical works, we have ugliness which, beyond a doubt, is a fact of normal perception, and so real ugliness. It may also, for a higher grade

of insight, be, as we suggested, apparent ugliness or a species of beauty.

Last of all, we must look at Fine Art as a section of the actual artificial world, and not as man's interpretation of the whole real world. We are not to look for real ugliness in the sublime, the humorous, or the grotesque, or the austere, or the rude, or the terrible, or the difficult, in short, in the partial, of fine art. All of this may be apparent ugliness, and we may at first mistake it for real ugliness, by not apprehending the depth of insight which exposes and therefore justifies the contradiction or narrowness which it embodies. It is, agreeably to what has been laid down, in the unrecognised, unexposed, and therefore positive contradiction, that we must look for the true seat of ugliness in man's aesthetic perception. We have therefore to seek the extreme form of real ugliness in false beauty, and in its species, such as the false sublime or falsely rude or terrible, and so forth.

I have only time to make hurried suggestions here.

We have such stages of real ugliness or expressiveness which is not characteristic, as

1. The feeble, which means to be tender or delicate.
2. The hideous or distorted, which means to be strong; *see Ruskin on Salvator's landscape.*
3. The tawdry or vulgar, which means to be splendid or charming.

It is not always easy to pronounce in actual cases, how works of art should be ranked. There is a very noble defence of the art of Teniers and those like him, in Hegel; but Ruskin I think takes the other side. The answer depends on insight into the real import and essence of the work.

According to the theory laid down, even bad art, as really ugly, ought to become a factor in beauty where recognised and expressed as ugly. This is an extreme case, but I may illustrate it by supposing that a great artist, in depicting some sad or terrible scene, should heighten the effect of horror by representing some vulgar or tawdry work of art among the accessories of the scene. In a picture like "The Awakened Conscience" it might be done, and very probably has been done.

To sum up, briefly, The beautiful is the characteristically expressive for sense-perception, comprehending all grades of expressiveness. It is this latter qualification that saves, so far as it can be saved, the attribute of pleasantness. By sacrificing grace, or symmetry, or colour, or rhythm, or variety, some of the lower or more general grades of expressiveness are lost, and this loss can of course only be justified by a corresponding gain of individual characterisation. But in fact,

loss of lower accessories is not the rule. As a rule, the greatest art has the greatest concreteness and perfection of detail.

Ugliness is the self-contradictory as expressed for presumption or fancy. Now the mere self-contradictory could not be expressed at all; it is nothing positive. It is therefore the positive contrary of the characteristic, i.e., the partial taken as the characteristic, that is true ugliness.

The world being positively determined in a logical way through and through, how can there be a positive contrary of the characteristic, which is a fact? The answer is, owing to the fact of organised individuality, which permits the collision of different forms and phases of reality, all in accordance with an ultimate logic. But I do not think that this contrary can exist with great certainty apart from the operation of consciousness in some form, confusing the part with the whole, *not merely* limiting its attention to the part. Mere limitation is not necessarily contradiction.

One word as to Morality and Immorality. Beauty and ugliness have no direct connexion with them at all, but are reflections, in another sphere, the sphere of sense-perception and sensuous fancy, of the same ultimate facts of reason and unreason, which morality recognises in its own way in the sphere of practice.

SYMPOSIUM—IS THERE EVIDENCE OF DESIGN IN NATURE?

I.—By REV. WILLIAM L. GILDEA, D.D.

I SHALL not say anything new. Dr. Johnson preferred the wrong side in a discussion, because it left more scope for ingenuity and novelty. I find myself on the right side in this discussion. But if there were anything new to be said, in any case, I am not the man to say it. I can do no more than use the arguments of well-known authors with whose writings you are familiar; with many apologies to those authors and to you for the unskilful way in which I shall handle their arguments.

How is it that the argument from "design" has lost its force with some? Is it because of the purely mechanical view of physical science which now prevails? Certainly not this. The necessary laws established by this conception of nature have driven the chance theory from the field and thus have done good service to those who stand up for "design." In the next place, this mechanical view assumes "design." For since mere laws could afford us no security against a turbid and disorderly chaos, prior to their working, there must have been definite conditions and circumstances, definite collocations of matter. John Stuart Mill admitted the truth of this; and Mr. Huxley says: "The more purely a mechanist a speculator is, the more firmly does he assume a primordial molecular arrangement, of which all the phenomena of the universe are the consequences, and the more completely is he thereby at the mercy of the *teleologist*, who can always defy him to prove that this primordial molecular arrangement was not intended to evolve the phenomena of the universe." The existing collocations of matter, then, are the result of original collocations of matter, antecedent to the laws of motion; in other words, the order and harmony which we now find are the result of an order and harmony impressed upon the system by some agent anterior to it, and therefore external to it. Mr. Spencer is virtually a witness to the truth of this when he describes the so-called homogeneous, which is the starting point of his hypothesis of Evolution as *diffused matter endowed with all its present properties and moving slowly through an ethereal medium*. And Lotze says that however far back the evolutionist may go, he has always to *assume some definite arrangement of parts*, some general laws of action of which he can give no account; *that there must always be a certain order to be accounted for*, and that *science is wholly inadequate to effect this explanation*.

Is it that the theory of "final causes" stands in the way of the

pursuit of "physical" causes? Not this, again. Leibnitz declared that the reverse must prove the case. And in point of fact, teleological principles are the working principles, even of those who deny design. Haeckel and Laplace posing as philosophers may deny design. But Laplace, the astronomer, takes into account the "intelligence supreme" which must have so disposed matter as to produce the solar and stellar systems, and employs the purely teleological law of "stability"; while Haeckel, the biologist, is compelled to assume an end, object, and design in organic nature. The triumphs of modern science from the revolution which Copernicus effected in astronomy by the application of the purely teleological law of "parsimony," have been obtained by considering the universe as if it had been a work of human art and applying to its study the laws which govern the human intelligence. Is it that evolution has given the death-blow to design? Nor this. Evolution, like the mechanical view, has done good service to design. As Bishop Temple pointed out in his "Bampton Lectures," the old argument from design did not exclude a multitude of designers, but "evolution" necessarily points to a *single intelligence*. Then, again, as Hartmann, Wundt, the Duke of Argyll and others have shown, Darwin's system is essentially teleological. "In Darwinism," writes the eminent American botanist, Dr. Asa Gray, "*usefulness and purpose come to the front again as working principles of the first order; upon them, indeed, the whole system rests.*" The conversation which the Duke of Argyll held with Darwin in the last year of the latter's life, gives an insight into Darwin's personal attitude towards teleology. In the course of that conversation the Duke said to Mr. Darwin, in reference to some of Darwin's remarkable works on the fertilization of orchids, upon earthworms, and various other observations he had made of the wonderful contrivances for certain purposes in nature, that "it was impossible to look at these without seeing that they were the effect and the expression of mind." Mr. Darwin looked at him very hard and said, "Well, it often comes over me with *overpowering force*, but at other times"—and he shook his head vaguely—"it *seems to go*."

Is it that the working of mind has been eliminated from the concept of nature? Not this. For those who deny a guiding intelligence, external to nature, are constrained to introduce an intelligence into the constitution of nature: "immanent intelligence," "mind stuff," what not else?

Is it because useless formations have been discovered? Who is to say that this or that is useless? We do not know all the powers of Nature, and we do not know all the purposes thereof. Man's intelligence is not the measure of truth; but the truth which he

knows is the measure of his intelligence. We must not confound logical truth with metaphysical. Mr. Huxley says: "It is almost impossible to prove that any structure, however rudimentary, is useless—that is to say, that it plays no part whatever in the economy, and if it is in the slightest degree useful, there is no reason why, on the hypothesis of direct creation, it should not have been created." And when Haeckel appealed to the existence of rudimentary organ as an argument against teleology, Mr. Huxley answered him, with a dilemma, "Either these rudiments are of no use to the animals, in which case . . . they ought to have disappeared; or they are of some use to the animals, in which case they are no use as arguments against teleology."

Is it that science is content to register material phenomena? Not this, again. Its province is to seek the unseen behind the seen, to infer the invisible from the phenomena. Is it because a designer external to the Universe would land us in the realms of mystery? Nor yet this. If we accept the teaching of Mr. Herbert Spencer, he will not guarantee us freedom from mystery. Rather he will pledge his word for the existence of mysteries. He writes, "But amid the mysteries which become the more mysterious, the more they are thought about there will remain the one absolute certainty—that man is ever in the presence of an infinite eternal energy from which all things proceed." I am not quite sure that he is not here pledging his word for Theism. We know, it appears, with absolute certainty that there is an energy infinite and eternal, that all things proceed from it, that man is ever in the presence of it. Add the note of "personality," and we shall not be far short of Theism. After all, is not the note of "personality" implicitly there? Man is ever in the presence of this energy. Now we *never* stand in the *presence* of a table or a door; we stand in the presence only of a *person*. Again. That which is infinite is necessarily either "formaliter" or "eminenter," every perfection. And who will deny that "personality" is a perfection? "Persona," says S. Thomas Aquinas, "signifies that which is most perfect in all nature—to wit, 'subsistens in rationali natura'—whence, since all that is of perfection is to be attributed to God, seeing that His essence contains all perfection, it is fitting that this name 'persona' should be predicated of God, not, of course, in the way in which it is predicated of creatures, but in a more excellent way, like all other names given to creatures and which we predicate to God." Mr. Spencer fears to give the name "person" to this "infinite and eternal energy," lest he should seem to restrict its infinity. But the "Infinite" does not mean that which is without any perfection. It means that which not only has, but *is* every perfection. "The perfections which creatures

possess, 'divide et multipliciter,' says S. Thomas, "pre-exist in God 'unite et simpliciter.'" If men who are not Theists would take the trouble to read the treatise, "De Deo Uno," of S. Thomas Aquinas, we should hear no more of "Anthropomorphism," "Carpenter Gods," "Brocken Spectres," and the like.

To repeat the question once more. How is it that the argument from "Design" has lost its force with some? I give it up. I have gone through every reason I could conceive, and found no cause in them. Those who follow me, if they do not agree with me, will explain.

I have shown that the present order and harmony postulate an order and harmony antecedent to all the laws of motion, i.e., postulate design. I have shown that "design" is considered the best working hypothesis even by those who deny it. I may now say that as the application of teleological principles extends the bounds of science, so also each growth of science makes more evident still the evidence of Design. The progress of physical science has made it increasingly manifest that the phenomena of non-living bodies must be traced to an inconceivable complexity, and yet stability, in the ultimate atoms of matter. Chemistry demands that the atoms of each element should be endowed with numerous properties, be all alike in these properties, and unchangeable; that is, as Sir J. Herschel remarks, "bear the stamp of 'manufactured articles.'" "Suppose," says Wurtz, "we take the 64 irreducible chemical elements and examine closely the ratio of their combination; we discover that they always combine in definite proportions. The relative weight is fixed in every combination, and the number expressing this relation is always inter-proportional for all kinds of combination. The elements only combine according to a fixed numerical ratio, manifestly declaring in this way that they have been exactly proportioned and adapted for their work in nature throughout all time. Almost all the sciences now employ mathematical formulæ, and by means of these figures and formulæ are discovered the secrets of nature. How could this be if number in science were not founded on number already existing in nature? The whole range of human science is nothing more than the ascertained amount of skilful arrangement existing in the Universe."

If there be evidence of design in inorganic nature, much more is there evidence of design in organic nature. An organism is a complex living whole, the various parts of which are reciprocally means and ends, and all the parts are means to the conservation of the whole. A distinguished biologist says, "The whole organism is instinct with an immanent finality and teleology not its own, which penetrates and regulates the inmost recesses of the parenchyma of its structure. Not only every system of organs, and every organ, but every cell

and the constituent parts of every cell, in fulfilling the evolution of its own being and perfection, contributes its quota to the predetermined perfection of the one organic whole." Then, again, the structure of an animal is exactly adapted to the conditions in which the animal is to live. Whence comes this perfect adaptation? It cannot come from the conditions of life themselves. The medium cannot set up instruments of resistance to itself. The waters cannot supply the fish with its pectoral fin; nor can the air supply the bird with its wing. We must, then, seek the power which so fitly suits the organism to its medium in the organism itself. Now the organism has been carried to its perfection either by expansion of the embryo, or by accretion. In either case, what Claude Bernard calls "a directing and organising idea," or "vital design," must be admitted. The only difference is that in the former hypothesis the "directing idea" exists in its entirety in the germ, which thus contains potentially the entire ulterior structure; and the process of growth is nothing more than the expansion of all the original relations; while in the latter hypothesis the "organising idea" distributes itself into successive acts of construction. We cannot afford to give up this "directing and organising idea" for the inefficient and inconsistent theory of "Natural Selection." According to this theory, the existing species of organisms owe their survival, in the battle of life, to some chance advantage accruing to them from natural selection. These organisms alone hit the conditions of equilibrium, and these alone can hold their ground. Yes! these alone can hold their ground by all means; but there is nothing in this to prevent less fortunate types from making their abortive bids for a place in the world; and where are such tentatives to be found? Natural Selection saves permanent races for the world, not by preventing the origin of others, but by defeating their efforts to hold their ground. We ought to see them on every side, unstable types fighting for longer or shorter periods their hopeless battle. We see no such instance. Natural Selection fails to explain for us the complete and persistent elimination of unsuitable types. For this reason I call the theory inefficient. Without proof and without warrant it supposes the battle of life fought out beyond hope of renewal of the struggle. The theory of Natural Selection satisfies still less when it attempts to account for the persistence of the stable forms of life than when it assumes the total elimination of the unstable forms. Here it is not only inefficient, but inconsistent and self-contradictory. An advantage derived from accident has accrued to a certain organism. There is, it appears, nothing more to be said. As in the case of less fortunate types, the battle has been fought and lost for ever; so here the battle has been fought and is won for ever. The law of heredity guarantees per-

sistence. The advantage thus casually acquired will be repeated again and again indefinitely in successive organisms, notwithstanding the inconsiderable fact that these organisms have no necessary relation to it, and are open on every side to change. Is not this playing fast and loose? fleeing with the hare and coursing with the hounds? The accidental advantages were, in the first instance, gained by a departure from heredity and from law. And yet they are at once established under the sanction of law! The law is broken to obtain the advantage, and then the law is enforced to maintain it. One moment the law sternly warns off; the next moment it fosters and cherishes. That the animal constitution should thus yield when resistance would bar improvement and become inflexible when yielding would be mischievous, is surely an arrangement beyond the resources of happy fortuity. But it is especially through the phenomena of instinct that nature bears testimony with clear and emphatic voice to a plan consciously designed for definite ends. We find in the phenomena of instinct abundant traces of a force acting for a purpose which is yet not the purpose of the immediate agents. We see creatures admittedly without intelligence performing without hesitation, and with unfailing precision, actions which, if performed by ourselves, would indicate a very high degree of intelligence, or at least, an elaborate training. The force guiding unintelligent creatures in these operations we term "instinct." Instinct may be defined as a "guiding light directed to a practical conclusion, but not by means of premisses; telling the *what*, but not the *why*; guiding correctly, but not supplying the knowledge on which a correct judgment could rationally be based." To give some remarkable instances of instinct: The female carpenter bee, to protect her eggs, excavates in a piece of wood a series of chambers one above the other, separated from each other by partitions; the lowest chamber communicating with the exterior. She lays an egg in each chamber, beginning with the lowest. When the inhabitant of the lowest chamber is ready to leave his nest, *there* is the exit prepared for him. The inhabitant of the chamber next above, when his time for departure comes, gnaws through the floor of his apartment and makes his way out through the opening used by the first departure. So in turn the inhabitants of the superior chambers. Clearly this complex nest was prepared by the carpenter bee with a view to the future actions of her progeny. Yet as clearly she could have had no prevision of these future actions. The female wasp of the genus *Sphex* acts as though she distinctly foresaw the needs of her future offspring. She provides for these wants in a manner which would seem to suggest a considerable knowledge of anatomy. When the eggs have been hatched, the young grubs will require animal food, and yet will be utterly power-

and the constituent parts of every cell, in fulfilling the evolution of its own being and perfection, contributes its quota to the predetermined perfection of the one organic whole." Then, again, the structure of an animal is exactly adapted to the conditions in which the animal is to live. Whence comes this perfect adaptation? It cannot come from the conditions of life themselves. The medium cannot set up instruments of resistance to itself. The waters cannot supply the fish with its pectoral fin; nor can the air supply the bird with its wing. We must, then, seek the power which so fitly suits the organism to its medium in the organism itself. Now the organism has been carried to its perfection either by expansion of the embryo, or by accretion. In either case, what Claude Bernard calls "a directing and organising idea," or "vital design," must be admitted. The only difference is that in the former hypothesis the "directing idea" exists in its entirety in the germ, which thus contains potentially the entire ulterior structure; and the process of growth is nothing more than the expansion of all the original relations; while in the latter hypothesis the "organising idea" distributes itself into successive acts of construction. We cannot afford to give up this "directing and organising idea" for the inefficient and inconsistent theory of "Natural Selection." According to this theory, the existing species of organisms owe their survival, in the battle of life, to some chance advantage accruing to them from natural selection. These organisms alone hit the conditions of equilibrium, and these alone can hold their ground. Yes! these alone can hold their ground by all means; but there is nothing in this to prevent less fortunate types from making their abortive bids for a place in the world; and where are such tentatives to be found? Natural Selection saves permanent races for the world, not by preventing the origin of others, but by defeating their efforts to hold their ground. We ought to see them on every side, unstable types fighting for longer or shorter periods their hopeless battle. We see no such instance. Natural Selection fails to explain for us the complete and persistent elimination of unsuitable types. For this reason I call the theory inefficient. Without proof and without warrant it supposes the battle of life fought out beyond hope of renewal of the struggle. The theory of Natural Selection satisfies still less when it attempts to account for the persistence of the stable forms of life than when it assumes the total elimination of the unstable forms. Here it is not only inefficient, but inconsistent and self-contradictory. An advantage derived from accident has accrued to a certain organism. There is, it appears, nothing more to be said. As in the case of less fortunate types, the battle has been fought and lost for ever; so here the battle has been fought and is won for ever. The law of heredity guarantees per-

will readily grant. In the next place, mere intelligence would not suffice to account for some of the instances of instinct mentioned. Given that the male grub of the stag-beetle knows that he is going to develop an enormous pair of horns, if he have intelligence of course he can provide against the evil day. But how is he to know it? Is the male grub also among the prophets? Lamarck says: "Instinct is a habit which has become hereditary." This answer is more enormous than satisfactory. If a philosopher of this school asked me how the wealth of the Rothschild was made, and I replied that the present representatives of the noble house received it from their respective fathers, he would probably reply, "Very good; but how did their respective fathers come by it? Didn't you see you are only putting the difficulty back a step? I want to know how the money was made." In similar sort I tell him now that he is only putting the question back a step. How did the ancestors of these insects acquire this habit which they transmit as an inheritance? No answer from Lamarck.

According to others, instinct is the result of past intelligence. This view assumes that the actions now performed instinctively by the lower animals were once performed intelligently by their ancestors. All the objections which were urged against the theory of Montaigne apply with equal force against this view. Furthermore, it is open to an objection from which the view of Montaigne is free. I can conceive an individual doing mechanically what he has done before consciously and with intelligence, but I want proof before I can accept the transmission of this mechanical habit to his descendants. Moreover, if the ancestor has transmitted his habit *a fortiori* he has transmitted his intelligence. And yet, in point of fact, the lower animals show absence of intelligence in all but the actions which they do instinctively. "Complete collapse of intelligence theory," we ought to call this view. I will mention one more view, which may be called, I think, "the multiplication of hypotheses" theory. This theory supposes (to make it concrete with an instance) that an ancestral wasp accidentally stung different insects—grasshoppers, caterpillars, spiders—in the different spots where their nervous ganglia respectively lie; that by some unaccountable but constant repetition of this fortuitous but happy hit, a habit was formed by the individual ancestor; that she foresaw the wants of her grubs, and by exercise of this habit provided against them; that this individual peculiarity, which did not, like a congenital organ, modify the structure and constitution of the creature, but was only an acquired and superficial way of movement, was transmitted by the ancestral sphex to its posterity; that its line thus became immortalized, that the posterity of all other sphexes than the heroic just mentioned have gone

away, like Hans Breitmann's party, to the "Ewigkeit"! I cannot help thinking that Alice was only half in Wonderland when this theory was not presented to her. And how Alice would stare if an attempt were made to account for the instincts of neuter insects consistently with this theory! And how I should stare, too! What shifts we are reduced to if we would account for intelligent action in unintelligent creatures without taking into account that all-controlling and directing mind whose existence is preached by the meanest atom! I must conclude abruptly, as my paper has, perhaps, already gone beyond due limits. On all sides we see in nature, animate and inanimate, the operations of a reason and logic which are not inferior to man's reasonings and logic—superior, rather, and correcting them. If nature were intelligent, without hesitation we should ascribe these adaptations to the intelligence of nature. But we are as certain that nature is not intelligent as we are certain that her works indicate intelligence. We must then seek this intelligence, not in nature, but elsewhere. And where shall we seek it but in Him of whom the Scripture, anticipating the discoveries of science, says that He has "disposed all things in number, weight, and measure"? Not the work of a "lapsed intelligence"—these! but of an Intelligence which is "yesterday, to-day, and for ever."

II.—*By S. ALEXANDER, Vice-President.*

WHEN Dr. Gildea humorously says that he finds himself on the right side in this matter he is, I suppose, representing in simpler words the fact that he is on the orthodox side. Orthodoxy means thinking rightly. But although he may have on his side the majority of persons, I do not think that he has with him the preponderance of evidence.

The subject appeals to so many minds, and has produced so extensive a literature, that controversy upon it is almost interminable. To take up each point in Dr. Gildea's paper and controvert it by hostile criticism, besides being uncongenial to myself, would not be the most profitable way of conducting the discussion. I shall therefore to state first the positive view which I take of the question, and when I have made clear the conclusions which the facts appear to me to warrant, to notice afterwards some of the arguments of the preceding paper.

I will concede at once that the idea of design, of a designing intelligence, is at first sight the easiest solution of the problem and has a *prima facie* plausibility. But in deciphering the manuscript of Nature it is likely that we shall have reason to recognise the truth of

a canon laid down by the critics of human manuscripts,—the rule of preferring the more difficult reading.

What is it that is in question? and what is admitted? If we take the whole of Nature as it is revealed to us, beyond doubt we can discover in it the existence of ends, and a principle can be traced in it which we may call by analogy design. The principle may be traced in two ways. Whatever exceptions may have to be made, the permanent forms of life taken separately are adapted, and exquisitely adapted, to certain ends. Even structures like the human eye, which taken by themselves seem to be the clumsy work of one of Nature's journeymen, are admitted to be admirable instruments in the conditions under which they are to work. I put aside also the presence of apparently useless structures. Whether they are really useless, or only appear so to our present limited knowledge is a question much debated amongst biologists. But to assume that they are all useful, as every advance in knowledge seems to indicate, is to strengthen the argument from design. And the principle of design may be traced in a second way. Not only are individual forms of life adapted to their ends, but there is a hierarchy amongst the different orders of existence and the lower serve the purposes of the higher and all serve the purposes of the highest, man. And I fancy that it is this "hierarchy of ministrations" which impresses the minds of men far more than the perfect adaptation of individual forms.

These facts are undoubted. What is in question is not these facts but the inference from them. The inference drawn by the so-called argument from design is that they imply an intelligence which has designed these single adaptations and this ascending order of service. This inference I dispute, both as going further than the data warrant, and as conflicting with a certain portion of the data. I shall try to shew that the existence of an intelligent design is an unnecessary assumption. If a man wished to construct such a world of forms as we find in Nature he could, it is true, do so only in virtue of a pre-conceived plan or design. But we are dealing not with men but with Nature as a whole. The appearance of design in Nature is so far from being a proof of an original intelligent design that it is itself the result of a process which is not design. That process is the process we know as natural selection. If it be asserted that there is still something hypothetical in this process (a point to which I shall refer later), there is at least no larger element of hypothesis in it than is involved in the idea of an Intelligent Designer, for in that theory we have to suppose, and not in virtue of our reason but of our faith and our wishes, that the waste and destruction in which the world abounds serves some purpose, a purpose which we, at any rate, are unable to verify.

1. That the process of natural selection itself produces the exquisite adaptations of life in its individual forms to the conditions of their existence, is plain enough. The very meaning of the process is that those structures which are not so adapted do not survive. Let it, however, always be understood that it is not the extinction of rivals which constitutes the inherent teleology of organic forms. A structure is adapted not because it excludes its rivals, but because it is a structure of a certain kind, or has certain properties. Many varieties are produced (it is now asserted, in consequence of the pairing of different individuals and of that alone); one of these varieties has certain properties which give it the victory over its competitors. Only that variety is left in existence which can live under the conditions to which it is exposed; it therefore exhibits the wonderful adaptation which we find and admire. Its adaptation and its existence are but one and the same thing. The animal is adapted in so far as it is considered in itself; it exists, in so far as it is considered in relation to the animals which have been defeated in their attempt to exist. And that it is adapted to its end is not something—at least the facts do not teach us that this is something—which preceded the trial of its powers against those of other forms; but is something which is discovered in consequence of its success, and is read into the successful form by the contemplating mind. There is no *a priori* idea of what is adapted to the conditions; but by seeing what forms succeed under the conditions, we discern what structure adaptation requires. The idea of an intelligence which designed these exquisite forms reverses, therefore, the order of the history, which first of all produced them and next teaches us to attribute to them the attainment of ends.

2. The other problem is a more difficult one. The whole order of nature (including inanimate nature) is an order of ministration and of use, culminating in the service of man. Is not this a proof of a designing Intelligence and moreover of a design which intended the welfare of mankind and more especially the prevalence of goodness? The answer is again a negative, and again the natural order of facts is inverted by the interpretation of them. The ministration of forms exists, but it is not an evidence of design; on the contrary, it is the inevitable result of the process which produces the forms. The lower forms are not intended to serve the higher, but only those higher forms are able to exist which are able to make use of the lower, to use their service. Suppose a new higher species to come into existence, with varieties A_1 , A_2 , A_3 , . . . and take for simplicity the single instance of the higher consuming the lower for their food. The variety A_1 , which can catch and can enjoy the bees or sheep, or say the insects, which it finds, lives and produces offspring, the varieties

A_2, A_3, \dots which cannot catch or cannot enjoy or cannot compete with A_1 , in the effort to find all they need, perish for want of food. The result is that only A_1 exists, and the lower forms seem to have been created to supply its needs. Whereas it was only because A_1 , was able to make use of them that it was left in possession of the field—to suggest to the minds of men the idea that the lower existence was designed in order that itself might live. I may seem here to have brought myself within the scope of the censure of a great philosopher. In his *Metaphysic* Lotze writes as follows (Bk. II., ch. viii., § 229, p. 399, Eng. Trans. ed. i.): "I know full well that as a thesis it may be maintained that any result, which presupposes mechanical agency presupposes nothing more than this. Nor is this new. Long ago Lucretius declared that animals were not provided with knees in order to walk, but that it was because the blind course of things had formed knees that they were able to walk. It is easy to say this and it may be that it sounds particularly well when expressed in Latin verse; but it is impossible to believe it; there is no more tedious product of narrow caprice than such philosophy of the schools." I should feel very nervous about a proposition, if it could fairly be held liable to so contemptuous a treatment from a thinker like Lotze. But the case is widely different. Even if Lucretius' question is not an idle one, I am inclined to think he took the wrong view, in subordinating function to structure. But here at any rate there is no question, as there, of two things which are really one and the same, but of the actual order of genesis of separate individual forms.

For simplicity's sake I have taken above those cases in which the lower ministers to the higher form and have shewn that the appearance of design is the result of a process which is not design. But exactly the same explanation applies to the other cases of apparently designed and intended service, where the higher may serve the purposes of the lower as in parasitism, or to those more interesting and complex cases of what is called *symbiosis*, where two organic forms appear each to serve the other. This is found in some cases of parasitism, as where an anemone lives in each claw of a hermit-crab, which it helps hold its prey and protects against the octopus, while deriving nutriment from it. But the most striking cases of proper symbiosis are the union of men and domestic animals at the top of the scale, and lower down several instances where one organism actually lives within another to the advantage of both. In certain "vegetating" animals there are vegetable organisms, algae, coloured with chlorophyll, which live within the blood, feeding on the carbonic acid and nitrogenous waste contained in the animal's blood, and themselves supplying

the animal with oxygen and starch and providing it with food when they are dead.* In these cases there is a most striking appearance of design, but it is explained in like manner by the action of selection through usefulness, only that the process is a double or reciprocal one which takes place on both sides. The alga which lives within the animal matter of the hydra has an advantage over other algae; the hydra in its turn, which finds its air and food within its own house, is able to compete with advantage in the struggle with its congeners. Man selects his domestic animals, which therefore seem designed for him; the domestic animals select man, and convert his habits from those of a hunter into those of the settled pastoral community.

The admirable arrangements of nature are thus the product of the process of selection itself. What inference can we draw from this result as to the value of the idea of a creative Design? The data warrant the following inference. The course of evolution results in the beings called men, who are conscious of their aims, who deliberately adopt means to ends, who lay plans and make designs. Looking back on what they find in nature they find no expression so natural as to say that the organic forms (and perhaps the inorganic) exhibit design, that the whole world is built upon a plan or order, is a manifestation of design. Such expressions are natural and necessary so long as we use language at all. I for one do not propose to banish the expression that the sun moves round the earth from east to west. I only maintain that the expression taken literally does not correspond to the truth. And I do not therefore quarrel with those who speak of nature as forming what we men should call a plan or design, but only with the inference that there is an Intelligence which designs the whole. Design exists truly only in one part of nature, in the region of human action. The facts warrant this; they warrant no more. On the contrary, they directly conflict with the notion of a designing intelligence. For they shew that the fair order of nature is only acquired by a wholesale waste and sacrifice. It is not to the point to reply that this destruction may serve a purpose. I am not speaking of the lives that are consumed by others, nor of the death that subserves the life of a species, but of the death that accompanies the struggle which determines the permanent order, of the mal-adjustments which perish in conflict with the adjustments. Now a man's designs do often turn out to be failures, but he does not intend them to be failures; or, if he does, it is always with a further design, to convince

* Art. *Parasitism*, Enc. Brit.

others of some error. But does God create large-winged insects on islands in order that, seeing them caught up by the winds and borne out to sea where they perish, the small-winged insects may profit by the lesson, when He has not given them intelligence to profit by it? And if we put aside this impossible evasion, what would be said of a workman who deliberately made useless designs? But this is what we must assume of the designing Intelligence, that He created failures in order that they might fail. If there were nothing in the world but successful forms of life, this objection would vanish. And it is by shutting their eyes to the incidents of the struggle and regarding only its products that men conceal from themselves the difficulties contained in the idea of a designing Intelligence.

If anyone is inclined, as Dr. Gildea seems to be, to doubt the existence of such failures, of organic forms which are extinguished by the victory of others, let him turn to the facts which are cited in works of biology—are they not written in the *Origin of Species*?—or let him look nearer home at what corresponds in human affairs to the aimless destruction of life in the lower world—at the bad actions, false thoughts, and ugly imaginations which perish in the conflict with goodness and truth and beauty. It is necessary to say this in order to guard against the misapprehension that in regarding failures as antagonistic to the idea of design, I include those good and noble lives of men which are called and often seem really to be failures, because the power is less than the aspiration. Good service rendered by men is not identical with—it may exist without—the conspicuous success which brings place and power or admiration. Many drops of water are needed to fill the ocean, but only the few which lie upon the surface can sparkle and rejoice in the light of the sun.

The existence of failures and their accompanying incidents of ruthless destruction and misery, has always opposed a difficulty to the idea of an Intelligent Design, and the difficulty is increased when this highest intelligence is coupled, as it must be, with the idea of beneficence. Men have rebelled against the notion that such an intelligence should have deliberately created suffering and cruelty, and set pitfalls in the way of the unwary. They have not been satisfied with the easy solution, that the havoc of the elements and the suffering that attends transgression have been designed as a punishment or beneficent institution, but have held God responsible for the evil as well as the good.

What! Be this juice the growth of God, who dare
Blaspheme the twisted tendril as a snare?
A blessing, we should use it, should we not?
And if a curse, why then who set it there?

And they have been justified in their rebellion both by sentiment

and theory. For how is it possible to attribute to a beneficent Deity the taking of means, which, if used by one of ourselves, we should brand with the deepest stigma of infamy? And in the next place, to regard the failures and the ruin as part of a scheme of beneficence is once more to invert the order of the facts. The earthquake and the destroying lightning can bear the aspect of beneficence only in so far as man obliterates the traces of their malignancy.

The view which has been expounded here is not open to the objection, always a telling one, that eliminate design as much as we may, we succeed only apparently, and do but push it further back into the beginning of things. For the whole of the present, so such objectors argue, must be contained in the past. There must have been an original collocation of matter from which the process of natural selection itself resulted, and this matter and its collocations we must regard as manifesting an Intelligent Design. Now if this reasoning is intended to imply that the history of the world exists in its beginning, as the plant is contained in its germ, this is a most misleading analogy. The oak is not contained in the acorn. The acorn grows into an oak only when it falls into the ground and can draw nutriment thence. If, however, it only means that whatever the early world may have been, the disposition of forces was such that the acorn must fall into the earth, and Socrates must marry a scolding wife, this is strictly true, but it does not imply design. It implies at most causation. What the early world was I do not know, or how it came into existence; I do not know even if it is legitimate to ask the question; but whatever view we may take of this subject, the Intelligence which designed this original collocation designed therefore not only the adaptation and successes which resulted from it, but also the failures and hideous ruin and wreck which accompanied the process. The wonderful adjustment of means to ends which seems to support the idea of Intelligence convicts this Intelligence at the same time of heartless incompetence.

I have expressed so strongly my opposition to the idea, that it must be added that these considerations, fatal as they are to the idea of Design, do not imply the untruth of Theism, but only of one kind of Theism. I do not think I could give any clear view of this ultimate question. I could only say that in accordance with the theory I have sketched I should think of God as growing along with the growth of the world, and only becoming intelligent and capable of design with the emergence of humanity. There is an old Greek idea of a power called Moirà, or Fate, which rules over everything, to which the Gods themselves are subject. And I do not know but that we are taught by the facts to accept a view resembling this, and to regard God as participating in the process in which all things are involved.

But to pursue such speculations would be out of place in this discussion. I would only add a protest against obscuring the issue by notions which are unexplained. Tell me what you mean by God, a man might say, and I will then consider whether the world can be said to be his intelligent design. Now the idea of a God, a Carpenter-God, who fashions the world into the world we know, with the history we know, is an intelligible idea. The objections to the idea of such a God do not concern, I think, the question of his intelligence, but of his omnipotence. Being as he is in presence of material which exists besides Himself, He is not self-contained. This idea is, however, at least intelligible. But the same cannot be said for the idea of an immanent intelligence by which it is attempted to evade the difficulties of a personal creator distinct from the world, and to reconcile Theism with evolution. Either the immanent intelligence is nothing but a comprehensive name representing the fact that all the forces of the world result in the production of the order we see and know out of the chaos in which order is mingled with disorder; and if so, what right have we to call it intelligence, or beneficence, or attribute to it a personality? If the phrase means more than this, it is perilously near to a catchword used to darken knowledge. At any rate if this intelligence is immanent, it is immanent in the failures as well as in the successes, and the God who is identified with this immanent intelligence appears as the union of the most contradictory attributes—at once the most exquisite of craftsmen, and the most blundering of bunglers, at once the object of worship and the object of execration, at once a merciful and long-suffering ruler, and the most bloodthirsty and reckless of tyrants.

I should be glad to stop here, having said everything of a positive and constructive character that I had to say. The difficulties raised by Dr. Gildea's paper which I have not indirectly answered concern the doctrine of natural selection itself, and if I were sure that Mr. Romanes, who I believe will come after me, would naturally take up this part of the subject, I should be glad to leave it to him and not meddle with a subject on which I have no claim to speak. At most, I can be only very brief. I have all through assumed natural selection to be a true account of the historical process of the world. I have done so (to make a personal statement) for two reasons: first, because I believe it to be used as a working hypothesis by all biological inquirers, and so far as I am acquainted with it myself, the evidence for it seems overwhelming, and the theoretical objections against it seem to me to rest upon misunderstandings; but, secondly, because in the subjects with which I am myself acquainted, I have

convinced myself that the law operates under the different conditions analogously to that mode of its operation which is described by biologists. So far as the present discussion is concerned, the burning question of to-day, whether natural selection is the only cause operative, is indifferent; except so far as a divine intelligence is supposed also to be involved, and this is the subject in dispute and has been discussed. With this preliminary I may shortly touch upon Dr. Gildea's objections.

1. The argument that the theory of natural selection breaks the law of heredity in order to get variation and breaks the law of variation in order to get heredity.—This argument which Dr. Gildea uses after Dr. Martineau appears to me, if I may say so with politeness, too wonderful to be good. It is in reality quite without foundation. What the law of heredity does is to determine the direction of variation or to determine the limits within which variation is possible. A man's brothers and sisters may all inherit the qualities of his parents and yet may all vary one from the other. If one of them has a very marked quality, his children will probably have this quality very marked in comparison with other families, but variations will be possible amongst themselves. The main lines obey the law of heredity, the choice of the main lines is made from the different variations.

2. If natural selection is true, everything is the result of chance.—On the contrary nothing is the result of chance, and has never been supposed to be. We call a particular variation accidental only because, for all we know, it might have been any one of a number of others. It is quite certain that the existence of that variation is due to definite causes.

3. The argument from instincts.—This is the most pictorial and effective of all the arguments for design. But as to the bulk of instincts, they are claimed as deriving their origin from the law of selection either with or without the accessory law of habit. I must refer again to Darwin himself. No doubt some cases are most perplexing, and in particular the Sphex which stings its caterpillars in their proper ganglia. I do not suppose that for a long time to come we shall have done with the Sphex. Now Dr. Gildea concludes to a divine intelligence, because the Sphex is so stupid, and he will not hear of its instinct being a case of lapsed intelligence. But if the Sphex is only stupid, like bees and ants, then if the instincts of bees and neuter ants (see Darwin) can be explained by selection, there is good hope that the Sphex may be explained in due time. There would be a real difficulty if Dr. Gildea held Mr. Romanes' view of lapsed intelligence. For if this were true it would be one item added to those facts which in the opinion of some shew that all

apparently mechanical actions in animals are originally intelligent. And this theory of fallen angels would be much closer to the theory of divine intelligence.* I do not know what use Mr. Romanes intends to make of his belief in the lapsed intelligence of the *Sphex*, or the ants which he found undermining a railroad. I am very far from being convinced that he is right, but at any rate this is not the question before me.

As I am about criticising Dr. Gildea, I will add a remark suggested by his paper: that he seemed to be willing to prove an intelligent design on any terms, and that he treated the evolutionists cruelly in using them as evidence for intelligence while he rejected their principles. And when he put forward his argument to prove that Mr. Spencer's Unknowable was really a personal God, because Mr. Spencer inadvertently said that "man is ever in the presence of an infinite eternal energy," I suppose that Dr. Gildea felt so sure of his position that he thought he might by way of a joke send a man out in front of the lines without any fear. But I am bound to use my sharpshooters as well as my regular men, and I will not let him off. So I will ask Dr. Gildea a question. I am sitting in presence of many hundreds of books; are they all persons? And I venture to think that Dr. Gildea is at this moment in presence of a difficulty. Does he think, except for the fun of the thing, that that difficulty is a person?

III.—*By PROF. G. J. ROMANES, M.A., LL.D., F.R.S.*

BEFORE proceeding to consider the main question, I should like to offer a few very brief remarks on two points which arise out of the foregoing papers, and which I do not think are logically connected with the main question.

Mr. Gildea writes:—"When Haeckel appealed to the existence of rudimentary organs as an argument against teleology, Mr. Huxley answered him with a dilemma. 'Either these rudiments are of no

* I leave this sentence as it was originally written. But the meaning (as I admitted in the discussion) is far from clear. Plainly, if all instincts are unintelligent there is more room left for a divine intelligence to account for their unerring accuracy. And in this sense the first view is closer to the theory of divine intelligence. But I meant that if we can succeed in proving apparently unintelligent or even mechanical actions to be originally intelligent, then the evidence of divine intelligence will be greatly altered in character, for then the universe will appear to be intelligent in all its parts.

use to the animals, in which case . . . they ought to have disappeared ; or they are of some use to the animals, in which case they are no use as arguments against teleology.' " Now, although this dilemma has often been quoted on the authority of Mr. Huxley, it has always appeared to me as transparent a piece of sophistry as could well be imagined. In order that there should be a dilemma, there must be two horns ; but in the present case there is really only one horn—the first having no existence in relation to the Darwinian theory. The proposition is that if rudimentary organs are of no use to their possessors "they ought to have disappeared." But it belongs to the very essence of the Darwinian theory to suppose that such organs are *in process of disappearing*. It would be impossible upon this theory that such organs should suddenly vanish the moment that they cease to be of use. *Ex hypothesis*, their disappearance must be gradual, and therefore ought to present all the various stages of degradation which in point of fact they do present. The only difficulty in the matter is to understand how Mr. Huxley can have committed himself to so absurd a statement of the case. Substitute for the equivocal term "rudimentary organs," the more precise and descriptive term *obsolescent organs*, and the futility of Mr. Huxley's "dilemma" becomes at once apparent. Clearly, the real answer to Haeckel's argument from "dysteleology" is, that obsolescent organs, not having been specially created, do not furnish evidence of any abortive design. On the contrary, they fall within the general scope of natural causation ; and therefore present no other or more special relation to the question of design in Nature than is presented by any of the other facts in the universe.

The other point to which I should like to allude occurs in Mr. Alexander's paper. Speaking of the theory of instinct as "lapsed intelligence" or "hereditary habit," he says, "This theory of fallen angels would be much closer to the theory of divine intelligence [than that which attributes the origin of all instincts to natural selection]. I do not know what use Mr. Romanes intends to make of his belief in the lapsed intelligence of the Sphex, and the ants which undermine a railroad." Well, in the first place, the intelligence of the ants which undermine a railroad is not lapsed. In other words, as I have elsewhere sufficiently shewn, it cannot be regarded as instinctive, but due to a perceived and intended relation between the means employed and the ends attained. In the second place, as regards the theory that many (though by no means all) instincts are the psychological vestiges or obsolescent rudiments of what were once intelligent adjustments—a theory which was held by Mr. Darwin and still appears to me the only theory that can explain the more complex phenomena of instinct—I fail to perceive that it lies any nearer to the theory of divine intelligence than does any other theory of instinct. I do not suppose

that Mr. Alexander would hold that the phenomena of mundane intelligence do anywhere constitute evidence of a peculiar kind, or exceptionally cogent quality, in favour of a supreme or divine intelligence. But, if not, why should he object to the theory of instinct as lapsed or degraded intelligence on the score of its supposed teleology? Is intelligent adjustment any more indicative of supernatural design when it has become by frequent repetition automatic, than if it had throughout continued consciously intentional? Are we to suppose that the technical skill of a Paganini is due to a special inspiration as soon as laborious practice has rendered his neuro-muscular machinery self-acting? If not, I confess to not understanding Mr. Alexander's point of view, or of being able to surmise to what "use" in the present connection he can have expected me to put the theory of lapsed intelligence.

But passing on now to the main question, I may best begin by "crying ditto" to Mr. Alexander's paper, in so far as this argues the fact that the theory of natural selection has reduced the phenomena of organic nature to the same category of strictly natural causation as that in which all the phenomena of inorganic nature are now by general consent regarded as comprised. Such, indeed, is no more than I have myself always maintained, and in many published essays insisted upon, as the greatest among the many great achievements of modern science.

But while thus fully agreeing with Mr. Alexander that the Darwinian revolution has subordinated the facts of organic nature to the same dominion of natural law as those of inorganic; while maintaining with him that the principle of natural selection is in the full and accurate sense of the term a natural cause; and, therefore, while clearly seeing with him that all objections which have been raised against this view are due merely to misunderstandings of the Darwinian theory; nevertheless, I cannot go with him to the full length of the conclusions which from these premises he proceeds to draw. And I am glad to have this opportunity of considering what appears to me the erroneous, because unwarranted, nature of these conclusions, inasmuch as I have rarely seen what I regard as their accurate, because fully warranted, premises so clearly and so forcibly presented.

The fallacy into which Mr. Alexander—*it company with an innumerable host of contemporary writers*—has fallen is, as I understand it, as follows. It is tacitly assumed that when any phenomenon has received a proximate explanation at the hands of natural science, it has thereby been proved no longer susceptible of any more ultimate explanation at the hands of what may

be termed supernatural theory; it is taken for granted that proof of physical causation is necessarily exclusive of any hypothesis of hyper-physical design. Now, without at present considering the validity of this hypothesis in any case, I must first of all try to make it clear that whatever the validity of the hypothesis may be, at all events it is certain that it cannot be affected by the proof of physical causation. Nay more, I will undertake to show that in assuming it to be thus affected, upholders of the so-called mechanical theory of the universe are really begging the question as between Design and the absence of Design.

The province of natural science is restricted, and necessarily restricted, to an investigation of phenomena under the category of physical causation. And so well has natural science accomplished her work, that with amazing rapidity during the last two centuries the miraculous has been banished from stronghold after stronghold. Understanding by the miraculous any supposed system of causation other than physical, we have only to remember how astrology has given place to astronomy, animism to physics, exorcism to medicine, and so on, in order to perceive that the supplanting of special creation by a natural evolution is destined sooner or later to be followed by a similar supplanting of a mystical psychology by a purely scientific one. And, when this consummation shall have been reached, the mechanical theory of things will be in full and demonstrable possession of the whole range of observable phenomena. Therefore, it is concluded, the theory of Design will have been demonstrably negatived.

But here is just the fallacy. What will have been demonstrably negatived is not the theory of design, but only the theory as to the manner in which such design, if present, has operated. If the question in debate were as between the miraculous and the absence of the miraculous (in the sense above defined), then, no doubt, the mechanical theory of the universe would be triumphant all along the line. But we must be careful not to confuse this question with the totally separate question as between Design and the absence of Design. The fact of Design in Nature (if it be a fact) is obviously distinct from the mode in which the Design may have operated; and therefore the proved error of any theory touching the latter need have no bearing at all on any evidence that we may have as regards the former. I say "need have no bearing," because I doubt not that if any proof could be given, say of special creation as distinguished from natural evolution, better evidence of Design would be furnished *so far as the evidence were deducible from that particular class of phenomena*—to wit, the special adaptations presented by the creatures thus suddenly introduced as ready-made mechanisms in complete harmony

here to have been made in favour of some miraculous intervention, whereby the elsewhere uniform sway of natural causation should have been suspended in the domain of organic life. The first supposition no one could maintain, and the second would be scarcely less fatuous. For the suggestion that an otherwise uniform method of Divine government (supposing such to exist) should have been interrupted for the purpose of obviating what we call "failures"—this suggestion could only stand upon the supposition that what are here called failures really are failures, not only in a relative but in an absolute sense; or not only in relation to the beings which perish, but also to the final ends (whatever these may be) towards which the whole system of this causation is directed. Obviously no human being can be competent to criticise the method in any such absolute sense; and, therefore, *à fortiori*, no argument against a possible design can be raised on the basis of such relative failures. But we are entitled to go further than this, and to affirm that even in a strictly relative, or proximate sense, no such argument can be raised. For it must be admitted that the failures in question can only be designated failures at all, by expressly having regard to them *per se*. So soon as we extend the area of our vision, so as to take cognizance of their relations to the system of Nature as a whole, we see that even within the sphere of human observation they can no longer be designated failures. In other words, they are failures only if it be supposed that their *telos* is that of maintaining themselves: not that of ceasing to do so, if needs be, in order to secure the higher or more general *telos* of advancing their type. Yet this higher or more general *telos* it certainly is that all such failures conspire to attain—and this as a matter of observable fact, whether or not the *telos* has been consciously designed. "The fair order of nature is only acquired by a wholesale waste and sacrifice." Granted. But if the "wholesale waste and sacrifice," as antecedent, leads to a "fair order of nature" as its consequent, how can't be said that the wholesale waste and sacrifice has been a failure? Or how can it be said that, in point of fact, there *has* been a waste, or *has* been a sacrifice? Clearly, such things can only be said when our point of view is restricted to the means (*i.e.*, the wholesale destruction of the less fit): not when we extend our view to what, even within the limits of human observation, is unquestionably the *end* (*i.e.*, the causal result in an ever improving world of types). A candidate who is plucked in a Civil Service examination because he happens to be one of the less fitted to pass, is no doubt an instance of failure so far as his own career is concerned; but it does not therefore follow that the system of examination is a failure in its final end of securing the best men for the Civil Service. And the fact that the general outcome of all the

individual failures in Nature is that of securing what Mr. Alexander calls "the fair order of Nature," is assuredly evidence that the *modus operandi* has not been a failure in relation to what, if there be any Design in Nature at all, must be regarded as the higher purpose of such Design. Therefore, cases of individual or otherwise relative failure cannot be quoted as evidence against the hypothesis of their being such Design. The fact that the general system of natural causation has for its eventual result "a fair order of Nature," cannot of itself be a fact inimical to the hypothesis of Design in Nature, even though it be true that such causation entails the continual elimination of the less efficient types.

To the best of my judgment, then, this argument from failure, random trial, blind blundering, or in whatever other terminology the argument may be presented, is only valid as against the theory of what Mr. Alexander alludes to as a "Carpenter-God"—i.e., that if there be Design in Nature at all, it must everywhere be *special* Design; so that the evidence of it may as well be tested by any given minute fragment of nature—such as one individual organism or class of organisms—as by having regard to the whole Cosmos. The evidence of Design in this sense I fully allow has been totally destroyed by the proof of natural selection. But such destruction has only brought into clearer relief the much larger question that rises behind—viz., as before phrased, Is there anything about the method of natural causation, considered as a whole, that is inimical to the theory of Design in Nature, considered as a whole? This is too large a question for me to deal with on the present occasion. On the one hand it may be argued, as Baden-Powell has argued, that the more extensive and the more uniform the method of causation can be proved to be, the better is the evidence of Design that it furnishes. On the other hand it may be argued, as Herbert Spencer has argued, that the method of natural causation is itself the necessary or mechanical result of what he calls the persistence of force—that is, in other words, of Being as Being, whether or not this self-existent or eternal Being is intelligent. On the one hand it may be argued, that it is the very consistency—or this very *persistency*—of the Divine method which blinds our eyes to the fact of its Divinity. On the other hand it may be argued that, even if it be the Divine method to govern by a system of general laws, instead of by a system of special interventions, seeing that the outcome must present to us the appearance of mechanical necessity, we cannot be blamed, either morally or intellectually, if we conclude in favour of this view. Yet once more, it may be argued, as it has been argued by a member of this Society in a recently-published essay—and this an essay of such high ability that in my opinion it must be ranked among

the very few of the very greatest achievements in the department of literature to which it belongs—it may, I say, be argued, as it recently has been argued by the Rev. Canon Aubrey Moore,* that “the counterpart of the theological belief in the unity and omnipresence of God is the scientific belief in the unity of nature and the reign of law;” that “the evolution which was at first supposed to have destroyed teleology is found to be more saturated with teleology than the view which it superseded”; that “it is a great gain to have eliminated chance, to find science declaring that there must be a reason for everything, even when we cannot hazard a conjecture as to what the reason is”; that “it seems as if in the providence of God, the mission of modern science was to bring home to our unmetaphysical ways of thinking the great truth of the Divine immanence in creation, which is not less essential to the Christian idea of God than to the philosophical view of nature.” But on the opposite side it may be represented—as indeed Mr. Aubrey Moore himself expressly allows—that all these deductions are valid only on the pre-formed supposition, or belief, “that God is, and that He is the rewarder of such as diligently seek Him.” Granting, as Mr. Aubrey Moore insists, that a precisely analogous supposition, or belief, is required for the successful study of Nature—viz., “that it is, and that it is a rational (? orderly) whole which reason can interpret”—still, where the question is as to the existence of God, or the fact of Design, it constitutes no final answer to show that all these deductions would logically follow if such an answer were yielded in the affirmative. All that these deductions amount to is an argument that there is nothing in the constitution of Nature inimical to the hypothesis of Design: beyond this they do not yield any independent verification of that hypothesis. Innumerable, indeed, are the evidences of Design in Nature if once a Designer be supposed; but, apart from any such antecedent supposition, we are without any means of gauging the validity of such evidence as is presented. And the reason of this is that we are without any means of ascertaining what it is that lies behind, and is itself the cause of, the uniformity of Nature. In other words, we do not know, and cannot discover, what is the nature of natural causation.

Nevertheless, I think it is a distinct gain, both to the philosophy and the theology of our age, that science has reduced the great and old-standing question of Design in Nature to this comparatively narrow issue. Therefore, I have directed the purpose of this paper to showing that, in view of the issue to which science has reduced this question, it cannot be answered on the lower plane of argument

* In *Lux Mundi*.

which Mr. Alexander has chosen. All that has been effected by our recent discovery of a particular case of causality in the selection principle, is to throw back the question of Design, in all the still outstanding provinces of Nature, to the question—What is the nature of natural causation? Or, again, to quote Mr. Aubrey Moore, “Darwinism has conferred upon philosophy and religion an inestimable benefit by showing us that we must choose between two alternatives: either God is everywhere present in nature, or He is nowhere.” This, I apprehend, puts the issue into as small a number of words as it well can be put. And whether God is everywhere or nowhere depends on what is the nature of natural causation. Is this intelligent or unintelligent? Is it the mode in which a Divine Being is everywhere simultaneously and eternally operating; or is it but the practical expression of what we understand by a mechanical necessity? In short, is it original or derived—final, and therefore inexplicable because self-existing; or is it the effect of a higher cause in the existence of a disposing Mind?

Although I cannot wait to argue this, the ultimate question which we have met to consider, I may briefly state my own view with regard to it. This is the same view that the originator of the doctrine of natural selection himself used habitually to express to me in conversation—viz., to use his own words, “I have long ago come to the conclusion that it is a question far beyond the reach of the human mind.” Such, of course, is the position of pure agnosticism. And it is the position in which, so far as natural science can help us, we are logically bound to remain—seeing that natural science is only concerned with natural causation as its *datum*, and therefore cannot pronounce upon whatever may be beyond this *datum*. Hence, if we rest our opinions touching the question before us on the basis furnished by natural science alone, those opinions must necessarily be agnostic—and the only thing we have to see to is that our agnosticism is *pure*. It is no more open to Mr. Alexander, who fully understands the selection principle, to argue that it furnishes evidence against Design in Nature, than it is to Mr. Gildea, who clearly does not understand the selection principle, to argue from it in the contrary sense. As far as natural science can help us, we must all be equally agnostic. But if we seek to go beyond natural science in all its special departments of investigation, we everywhere encounter the question—What is the nature of that natural causation which it is the function of natural science, in all these its special departments, to investigate? And, as already indicated, our answer to this question can only be determined, not by any knowledge of natural science, not by any study of abstract philosophy, not even by any enquiry touching the truth of a supposed revelation: it can only be deter-

mined in those mysterious depths of human personality, which lie beyond the reach of human investigation, but where it is certain that through processes as yet unknown to us, by causes—if they be causes—as yet unrevealed to us, there results for each individual mind either the presence or the absence of an indissoluble persuasion that “God is.”

I am not ashamed to confess that in my own individual case such an internal persuasion, or antecedent belief, is but extremely vague; and therefore I do not perceive any evidences of Design in Nature the value, or cogency of which I am in any degree able to estimate. But this does not hinder me from perceiving that to anybody else in whom this antecedent belief is strong, there may be—and, indeed, must be—an immense body of such evidence, the cogency of which will vary with the strength of such belief. Moreover, not only will it thus vary in fact, but it ought so to vary in logic. In other words, the cogency of the evidence is properly or rationally influenced for each individual mind by the character and degree of the antecedent belief in question—just as the cogency of legal evidence is properly or rationally influenced by the strength of a *prima facie* case. Of course there must arise for each individual mind which holds such an antecedent belief, the question as to his grounds for holding it. But this is obviously a distinct question. And, supposing that he has satisfied himself with regard to it, he is forthwith in a position to view the evidences of Design in Nature from a standpoint totally different to that which is occupied by a mind not already or antecedently persuaded that “God is.” Hence, the one man is as logically justified in seeing the evidence as the other man is logically justified in not seeing it. The point of view having been changed, the whole prospect is correspondingly modified. The question, “Is there evidence of Design in Nature?” has been referred from the lower courts of objective fact to the supreme courts of subjective personality; and there it stands to be decided by each man for himself at the tribunal of his own judgment.

NOTES

By the late CONSTANCE C. W. NADEN.

I.—*On Rationalist and Empiricist Ethics.*

[THE following notes, prepared by the late Miss Naden for a paper which she was prevented from completing by her lamented death, are printed at the request of her literary executor.]

Man is a principle-forming, identity-recognising animal. His rational nature obliges him to see the universal in the particular—the principle in the action.

It is inevitable, both rationally and necessarily, that there should be principles of action, just as that there should be principles of thought. Morality is *acting* the truth, exemplifying in action the perception of reason. Thus, whether we wish to act in a certain manner or not, our intellectual perception that this manner [of action] is right or wrong will remain unchanged—except by self-deception, which is never perfect. If we ask, why should we wish to do right or to so reason? the answer is that to do otherwise introduces a fundamental discord into our nature. Conscience, i.e., reason, will go on saying “That was wrong,” i.e., was irrational.

A principle becomes a law when animated with regard to action. What action is reasonable? becomes What *should* I do? Reason being the admitted guide of life, *ought* is the rational *must*.

[Principles of action then being inevitable] the only question is, Of what kind shall these principles be?

Man is a social animal. His perception of other men involves a rudimentary sympathy and justice, an intellectual and emotional perception, “this being is as I.” His character is made up of his sociality; his egoism is altruism. Therefore it was inevitable that he should recognise as right, i.e., as rational, or true, the principle that he should treat others like himself. There is, besides, a physical as well as a logical necessity; on no other principle could society cohere. It is this physical necessity which Mr. Herbert Spencer has partially expressed in his *Data of Ethics*.

The intellectual perception—“this being is as I”—is reinforced by the emotional perception or sympathy. Before it reaches justice it must expand into the further perception, “This community is

formed of beings like myself," with its corollary, "They and I are alike members of the community; it is rational that we should all act as members and support it and each other."

This principle guides and restrains the sympathy which is its life-blood. Without the principle the sympathy might be turned in the wrong direction; with it we feel that all who act otherwise than as members of the community are acting wrongly or irrationally.

But a wrong action does not stand on the same level with a wrong conclusion in logic, because the wrong conclusion is simply a mistake, while the wrong action is not a mistake, but is due to the interference of some desire, which is carried so far as to violate reason. The whole man is not under the sway of reason, though he knows that reason is his true ruler, and he will sometimes act as though he were not a member of a community, as though these were not his fellow human beings. He will commit actions which, if translated into principles and followed out by society, would in time destroy society.

These violations of reason awaken our detestation in proportion as we have realised the bearing of reason upon conduct. They do so because they contain the seeds of disintegration and discord. A mere intellectual mistake does not sin against rational principle; a wrong action or a wrong desire openly defies reason.

Thus the sympathy which we might feel for the wrong-doer is quenched by the hatred we feel for his action. Again, this hatred is reinforced by our sympathetic anger on behalf of his victim—an anger which is fostered by reason. Moral indignation is compounded of our abhorrence of what violates reason and of our sympathetic anger. Punishment is at once the vindication of the principle and the satisfaction of our emotion.

The different kinds of right-doing can all be accounted for on these principles. We have traced retributive justice. Equity in general is nothing but behaviour to men in accordance with their common human nature, or else with some of the differences of this universal. What differences, all are not yet entirely agreed. Socialists exclude, for instance, differences of natural and acquired ability. This question, too, can be dealt with on rational grounds. A man of more ability must have more power of some kind, because power is ability's necessary complement. But whether power in the shape of money, is a secondary consideration, to be settled by expediency.

Truth-telling is, of course, the very essence of reason. Truth is the vehicle of reason, falsehood a barrier against reason. For reason is not merely your reason or my reason, but it is that faculty in

which we all share, and by which we are bound together—the universal of which our minds are differences. What wars against this, wars against human nature, yours and my nature. So when I tell a man a falsehood, I give him wrong materials for judgment. I war against the highest part of his and my nature. It is this unnaturalness of falsehood that we really feel as wrong. But if I tell a falsehood to an unjudging being (a lunatic), I do not sin against reason to the same extent.

Kindness and benevolence are mainly sympathy, but, unless restrained by considerations of social welfare, tend to be actually immoral. Benevolence will in the end merge in justice by a natural necessity. (Reference to C.O.S.)

Courage and purity are rather the bases of virtue than virtues themselves. Courage is essential to efficiency, purity to the predominance of reason over passion.

When these virtues war, the choice must incline in the direction in which the harmony of reason is least disturbed. A lie, when it does not include the renunciation of some vital truth, may violate reason less than the infliction or permission of great suffering on some other, or perhaps even on a man's self. And so on. We cannot lay down definite rules for this; each case must be decided on its merits because the differences are so multiplex.

But you say, "Does not reason tell me to act as a physical as well as a social being?" Undoubtedly. You should act as a human being, that is, as a unity and harmony of the two natures. But for your physical nature, you could not know what is due to the physical nature of others. But your whole humanity, intellectual as well as moral, depends on your membership of society. So far as reason counsels the violation of this membership, she renounces herself and takes a step towards self destruction. She must therefore command the restraint of the physical desires, so far as they war against social duty.

The development of morality as a widening of the sphere of the Golden Rule. To barbarians, then slaves, and at last women! Even animals, though here the principle tends to run wild, because differences are disregarded.

The Utilitarian theory and the Rational theory are two aspects of one philosophy.

Man is conscious of himself as a human being. He has an intellectual, an emotional, and a physical nature, which demand satisfaction, and which it is the end and aim of his being to satisfy and harmonise. Of these the intellectual nature is the guide and ruler. It is reason which decides whether a conclusion is true and

whether it should form a datum on which conduct can be based—whether a given action is wise or unwise, expedient or inexpedient. Reason is the principle-forming faculty, sees the universal in its differences.

But if man is conscious of himself as a human being, he is also conscious of other human beings [who are] as himself, both as having an identical nature, and as making up his own nature. That is, reason finds in humanity the universal of which individuals are the differences. Knowing himself he knows others so far as they too are human.

These other human beings have their intellectual and emotional nature. Reason, where it fulfils its proper function, urges that his attitude towards this nature as displayed in them should, so far as the restrictions of individuals permit, be one with his attitude towards this nature as displayed in himself, because it is not made different by being in them. And his very knowledge that he and they are human implies and is a knowledge of reciprocal claims and duties. His very humanity is made up of his claims upon others and theirs upon him, of mutual actions and reactions. So that his own nature implies, presupposes, that of others; in thinking of himself he is already thinking of them. His attitude towards his own intellect and emotions is an attitude towards that of others. He cannot become self-conscious without becoming conscious of the self in others. Language implies this consciousness of identity. The words "thought" "feeling" do not mean merely my thought, or feeling, but mean faculties [common to all men]. The emotional aspect of this is sympathy. (See Leslie Stephen.)

My intellectual attitude is an attitude towards the "universal" human nature, as embodied in particulars, and as those particulars are organised in society.

The consciousness of self is the consciousness of others because of the universal in self and others. But for their reason I should not be rational; but for their emotions I should not be emotional. They make my nature, I theirs. Our natures are identical; it is rational, i.e., right that my attitude towards them should be identical as far as possible.

This is the principle, implicit or explicit, of morality in all ages. "Do unto others," &c., is its concrete expression. I feel that it is fair that those who are essentially *I* should be treated essentially like me. Who is my neighbour? or who is like me? is, as Green shows, the question we have to solve. The object of morality is, in its broadest development, universal human nature; its end, the welfare of that nature in its perfect harmony.

Now, Utilitarianism lays its stress on the latter clause—the

attainment of human welfare—leaving out of sight the rational justification which the rival theory insists upon.

II.—*On Mental Physiology and its Place in Philosophy.*

1. Does the physical depend on the psychical? Yes, for the universe, as known to us, exists only in our sense-perception, synthesised by the intellect. (*See Green.*)
2. Does the psychical depend on the physical? Yes, in two ways (*a*) sense-perception, intellect, and the moral character can be shown to vary with varying bodily states, and to be dependent on certain physical structures. (*See Wundt, Carpenter.*) (*b*) All thought begins with physical phenomena, and with their relations. Even thought about human beings does so, though its entire content is not physical.

How reconcile these two views?

View I. goes beyond itself. The intellect asserts the persistency of the universe, as a system not made by any individual human mind, nor by the mind of collective Humanity—a system which continues when I am absent or dead, and will continue after the death of Humanity, and existed before its birth. The universe, then, does not depend on my physical and intellectual perception of it, or even on the intellectual perception of the race. And yet, as far as I know it, it is nothing but intellectual and physical perceptions. There must therefore be a persistent element in the universe prescribed by my consciousness and knowledge, and yet capable of existing apart from and independently of consciousness and knowledge.

It is on this element, not on the perceived phenomena, that the psychical must be said to depend.

But *ex hypothesi*, physical phenomena are the expression of this element. There is a sense in which thoughts (and therefore Thought, the universal) do depend on these phenomena, though undoubtedly thought is necessary to this phenomenal expression. Apply this to mental physiology and metaphysics. The one shows the dependence of mind upon the reality which expresses itself in physical phenomena, the other the necessity of mind to this expression of the Reality.

Mental Physiology does not *explain* psychical phenomena, far less does it explain the nature of man. But its function is to show in detail the dependence of the psychical upon the physical, and so to destroy those false conceptions which treat man's psychical nature as

separable from his physical. Its function, indeed, is to destroy Dualism on the one hand, as pure metaphysics destroys it on the other; and so to exhibit human nature, not as a duality, but as an unity under different aspects. We cannot do this by means of Metaphysics alone, because the question of Mental Physiology keeps obtruding itself, and so long as it is not explicitly recognised [keeps] suggesting uneasy suspicions that our synthesis has not been thorough.

The whole theory of Evolution has the same function. This is its legitimate place in philosophy. It has too often been tempted to assume an illegitimate one, and to pose as explaining those facts of sense-perception which it had to start by assuming. Metaphysics also has assumed an illegitimate function by endeavouring to evolve the universe from abstract conceptions.

The position which I desire to establish is that Mental Physiology and Evolution have their place in philosophy so-called, and are not interlopers under false pretences.

UNIVERSALS IN LOGIC.

By SHADWORTH H. HODGSON, Hon. LL.D., Edin., President.

I.

THE consideration of Universals takes us into the very heart of the whole subject of Logic, universals being bound up with all thinking, which cannot and does not arise or proceed, except by creating and dealing with them. They are more familiarly known by the name of General Terms, their generality or universality consisting in each of them being applicable to, or predicable of, several particular, individual, or singular terms; which latter are the derivatives of general or universal terms, and only as such derivatives have a place in Logic. All language, barring proper names, is made up of general terms, that is, words expressing general ideas, or ideas embracing several instances of the meaning expressed by the word. Singular things are expressed in thought-conveying language by the combination of two or more general terms, as for instance, *this table, the first day of the year, the present Conservative government*. The question of the nature and origin of Universals is therefore one of cardinal importance.

In fact the formation of universals or general terms is the first step taken in thought, as distinguished from the states of conscious-

ness which supply its material. And as such it constitutes the first of the three great divisions under which Logic considers the operations with which it deals, namely, that of Simple Apprehension or Conception. Simple apprehension is, in Logic, conception in its lowest terms. And all concepts are, in virtue of being simply apprehended, general terms or universals. It is but natural that controversy should prevail on a point of such significance for logical theory and practice.

I particularly regret Mr. Dziewicki's unavoidable absence this evening, inasmuch as we should no doubt have heard from him a far better and fuller exposition of the scholastic doctrine on this point, than I can supply, especially in so brief a paper as the present. I will, however, endeavour to make up for my deficiencies, by reading to you one or two passages from the *Logic* of Father Richard F. Clarke, S.J., published last year (1889), and forming part of the Stonyhurst Manuals of Catholic Philosophy. Having said that simple apprehension depends on the process of abstraction, the writer thus proceeds (pp. 104 to 106) :—

"Thus, when a horse is presented to me, *Abstraction* enables me to withdraw my mind from the fact of his being race-horse or dray-horse, chestnut or grey, fast or slow trotter, healthy or diseased, and to concentrate my attention on that which belongs to him *as a horse*, and thus to draw out of him that which constitutes his essence and which we may call his *equinity*. In virtue of my rational nature I fix my mental gaze on that mysterious entity which makes him what he is, I grasp or apprehend his equinity, I perceive intellectually that hidden something which is the substratum of all his qualities, the root whence the varying characteristics which mark him out as a horse, all take their origin. It is in the assertion of this faculty of *Abstraction*, as the *power of drawing out of the object something which is really there independently of the mind that draws it forth*, that consists the whole distinction between scholastic and the so-called modern philosophy. It is in the definition of Simple Apprehension as not merely the grasping into one certain qualities of the object selected by the mind, but the grasping by the mind of an *objective* reality in the object, whence certain qualities flow quite independently of the mind which apprehends them, that consists the central doctrine which gives to the philosophy of the Catholic Church a bulwark against the inroads of scepticism, impossible to any system which has lost its hold on this central and vital truth. Modern error starts with misconceiving the very first operation of Thought; with such a foundation we cannot expect the superstructure to be remarkable for solidity.

"From the process of Simple Apprehension we must now turn to

the result of the process, from the act to that which the act engenders, from conception to the concept.

"We have seen that whatever is received into any faculty has to accommodate itself to the nature of the faculty, and consequently that the image of the external object received into the intellect must be something supra-sensible and spiritual. It has been grasped or apprehended by the intellect, and transferred so to speak into it, and it has consequently been purified of the materiality clinging to the image present to the imagination, and prepared for its abode in the sphere of immaterial Thought. It is thus no longer the representation of one single object and no more; it is now applicable to each and all of a whole class of objects; it is no longer a *particular*, it is an *universal*. It is not the sensible image stripped of those attributes peculiar to the individual as such and applicable to a number of objects by reason of its vagueness. It belongs to quite a different sphere; it is raised above the region of sense to the region of intellect and of *Thought* properly so called."

In an earlier passage of the same work the author had explained the meaning to be attached to the word *Thought* (p. 5).

"*Thought* is also used in the narrower and stricter sense of the exercise of our intellectual faculties properly so called, of that immaterial faculty which brings within the range of our knowledge things above and beyond sense, which recognises in things sensible that which is supra-sensible, and contemplates under the external appearance the underlying nature."—And so on.

Returning to Simple Apprehension, we read again as follows (p. 141-2):—

"Our Catholic theory of Simple Apprehension or Conception, on the other hand, is that it is the grasping by the intellect of that supra-sensible entity which underlies the sensible and material qualities of the things of sense. It is the apprehension of that which makes the thing to be what it is. The intellect pierces through the veil of sense to something which lies beneath and beyond it, and which is altogether beyond the reach of the imagination, or any other material faculty. It attains the true nature of the object which constitutes its essence, a nature which it shares with all other objects belonging to the same class and called by the same name: a nature which is perfectly alike in all, and, as conceived by us, is not only alike in all, but the same in all; a nature which is the source of the common qualities of the objects, causing them to resemble one another and to make upon us similar impressions: a nature to which we never could attain by the stripping off of some of the qualities of a number of objects, or by any exclusive fixing of the attention on one group of attributes to the exclusion of the rest: a

nature which can be reached by the intellect, and by the intellect alone, in virtue of its immaterial and supra-sensible character."

Of course, you will understand that, in selecting these passages, I confine myself to the bare point under consideration, for the full exposition of which, and for arguments in support of it, I must refer you to the work quoted. Still, these passages are sufficiently explicit to justify the following criticism, which reduces itself to two points. The first is, that the doctrine ignores the distinction between processes of knowledge and processes of thought, in defining the process of thought called simple apprehension by the kind of knowledge it is supposed to procure; whereas Logic properly deals only with processes of thought as such, irrespective of what knowledge may be procured by the thinking process. And secondly, it represents the nature of the thinking agent on the one hand, and the objects known by it on the other, by means of terms which cannot themselves be positively construed to thought; I mean by those of an immaterial intellect and an immaterial object, as, for instance, "equinity" in one of the passages read.

I will say nothing on this latter objection, because the reply is always conceivably possible:—Though *you* cannot possibly construe these things to thought, *we* can; and if you can *not*,—endeavour to learn; a reply which is often very effective as an argument *ad verecundiam*. But the case is different with the first objection. It points to a fundamental error in the very conception of Logic, that of making it include a theory of Being. It is, in principle, precisely the same objection which I had recently occasion to bring against Hegel's Logic, since both alike confuse thought with its object; the difference being that, whereas Hegel makes thought the sole necessary producer of its objects, the present theory suspends its definitions of thought on the special nature of the objects which it is formed to perceive. It follows that some theory of the nature of these objects is a necessary part of Scholastic Logic. And then, since these objects are Universals, we are called upon to embrace some form of what is called Realism, as a logical theory, notwithstanding that it is one with which Logic, as the theory of Thinking, has really nothing to do. Without some form of Realism, Scholastic Logic would be impossible.

Thus at page 163 of the work before cited, we read:—

"We have now had before us the various doctrines respecting Universals. We have seen that the errors respecting them are closely allied to the errors respecting Simple Apprehension or Conception. They commence with confusion of thought and they lead on to utter scepticism. These errors are multiform, but may be summed up under three heads:—

"1. The Ultra-Realists maintain that Universals as such have a

real existence outside the mind—either as self-existent forms wandering about the world, or as existing in the Divine Intellect—and that when we form a general idea the mind grasps one of these forms, or contemplates some of the ideas in the mind of God.

“2. The Nominalists hold, on the other hand, that Universals as such have no sort of existence except in general names, which are a useful shorthand nomenclature under which classes may be summed up. When we form a general idea we really think of certain attributes which are individual, and which we observed in an individual, but which we assign to other individuals by reason of a supposed resemblance existing among them.

“3. The Conceptualists assert that Universals exist in the mind, and are the creation of the mind, though based on certain similarities observed in a number of individuals: that, consequently, they are something relative, not absolute. In the act of Simple Apprehension we identify these similar attributes and give them a common name.

“4. The Schoolmen, following Aristotle and St. Thomas, who may be called Moderate Realists, assert that Universals exist outside the mind, but not as *Universals*; that in the act of Simple Apprehension the intellect abstracts from the individual apprehended the universal concept, and takes cognisance of the individual through the concept.”

This confusion of what belongs to thought with what belongs to knowledge, was virtually seen through and remedied at the epoch of the Renaissance, when the pursuit of scientific knowledge was placed on an independent basis of observation, experiment, and induction, and when consequently the laws of thought alone, as distinguished from the methods of using it for the acquisition of knowledge, were left to Logic as its legitimate and undisputed domain. It would have been difficult to trammel the exercise of thought in the pursuit of knowledge more effectively, than by throwing the ægis of Logic over the assumption, that the perception of some immaterial entity was necessary to constitute a genuine act of thought. That was the trammel which science shook off at the Renaissance epoch; and the liberation of science, wherever it was effected, rested on the surrender of the assumption, and carried with it the reform of Logic. The existence of immaterial entities is not a question which Logic is competent to determine.

II.

I pass in the next place to consider the nature and mode of origin of concepts, general terms, or universals, as revealed by simple analysis of experience, without resting the view taken of them upon assumptions regarding the nature or reality of the objects known, or knowledge acquired by means of them. Here I may be very brief,

more especially as I have said so much on this point in my recent address, at the beginning of the Session. An act of attention to any perceptual datum for the purpose of harmonising it with other parts of the content of consciousness present at the time, and either with or without recognition of that purpose as a purpose, turns that datum into a concept or universal, which is expressed in language by a general term. What this act of attention does, simply as an act taken abstractedly *per se*, is expressed by the Postulates of Logic, or Laws of Identity, Contradiction, and Excluded Middle. Any datum so fixed on by attention is thereby conceived (1) as being itself alone, and (2) as expectant of some modification or addition by combination with other data. Its expectancy, which is due to the act of attention, constitutes its potential generality. It is originally born in consciousness as a percept, and is now re-born in conscious thought as a concept, by the act of attention directed to harmonise it with other data. And the word or other symbol, which we use to recall and express it, being equally applicable to all its similars, whenever and wherever they may occur, is a general term, the whole meaning of which is from the first, and always, waiting to be filled in. Such, very briefly stated, is the whole mystery of universals, so far as Logic is concerned. The nature and validity of the *knowledge* which we acquire, or suppose ourselves to acquire, by their means, is another matter, depending on quite other sciences.

III.

It seems most advisable, in a paper intended to bring before you for discussion the main principles and outlines of the subject of Universals, that I should omit those parts of it which may be learnt from ordinary manuals, and the controversies concerning which are for the most part of minor importance, such as, for instance, the relation of the Categories of Aristotle to his Four Heads of Predicables, the doctrines of Opposition, of Comprehension and Extension of Concepts, of Definition and Division, of the Scala Generum, and so on, and proceed at once to the psychology of the subject, that is, to the connection of the conceptual process with physiological functions upon which it depends. Psychology is nothing else than the study of the connection between states and processes of consciousness generally and the proximate real conditions upon which they depend. And to put the functions of what is called popularly the mind, but scientifically the brain and nervous system, side by side with the processes of consciousness known as thinking, comparing, generalising, conceiving, which are their dependent concomitants described in logical nomenclature, is a valuable means of controlling and testing the accuracy of both classes of processes.

In the first place, then, we find, that the process of conception belongs to the larger field of processes which may be called indifferently Redintegration, Ideation, or Association of Ideas. The neuro-cerebral functions upon which these processes immediately depend are subject to one cardinal distinction, in whatever part of the neuro-cerebral organism they may at any time be taking place, I mean the distinction between the reception of impressions, or stimuli, and the re-action which takes place in consequence of that reception. But here it must be remembered, that both the reception and the re-action severally are processes consisting of actions and re-actions in nerve substance, of which subordinate actions and re-actions I do not now speak. I am speaking only of the processes taken each in its entirety, and described by its result, reception of impressions in the one case, and imparting of impressions in the other. The reception is for the most part accompanied by feelings and ideas, and the re-action which follows involves the reception of another impression in that part of the system, whatever it may be, upon which it is directed. It is impossible to doubt that those processes of consciousness which we call volitions, depend upon some special class or kind of the reactive functions of the neuro-cerebral organism, as distinguished from its receptive functions.

Now we know far more about the detail of the concomitant processes of consciousness, volition included, than we know about the detail of the physiological processes on which they depend. The consequence of this is, that we have to speak of the detail of the latter in terms of the detail of the former. We cannot, for instance, as yet, say, what particular class of cerebral re-actions, describing it in terms of physiology, is that upon which volitions depend ; we have to describe it as that class which is accompanied by volitions. Nevertheless, we cannot doubt that some class there is, upon which volitions are dependent. And it is this special class of re-actions, as distinguished from receptions and from other cases of re-actions, which corresponds to the great and cardinal distinction in redintegrative processes of consciousness, I mean the distinction between spontaneous and voluntary redintegration, ideation, or association of ideas.

We can now see, not indeed the reason, but the fact that there is some real and positive reason, if we could but extend our physiological knowledge, for the conspicuous position which conception occupies among processes of consciousness logically described. For conception is nothing but the logical description in terms of consciousness of the lowest and simplest act of volition arising within consciousness, and making part of a series or complex of states of consciousness of which we are conscious previous to the moment of its arising. This

act is an act of attention for the purpose of harmonising one of these states with others, the immediate result of the act being to make that state a concept, an universal, or a general term. Thus it is, that the cardinal distinction in all logic coincides with some mode, not yet fully known to us, of the cardinal distinction in all neural physiology.

Our result so far is, that Redintegration, Ideation, or Association of Ideas, falls into two main divisions, (1) spontaneous, and (2) voluntary; of which the former supplies the pabulum or material of the latter, and the latter consists of modifications of the former; the two processes going on side by side with one another, at the same time that one is always being, part by part, modified by the other, and then allowing the parts which are so modified from time to time to fall back again, and take their place in the spontaneous order. In other words, conceptual volition is perpetually modifying the spontaneous processes and material of represented images and feelings, and more and more reducing their chaos to order, until in the end the whole mass of what we may call our mental furniture becomes penetrated and as it were lit up with the light of thought kindled from within.

One of the most efficacious ways of bringing psychology to bear on the discovery of the physiological functions actually employed in redintegration is that of taking it on its historical side, the side of Anthropology, which includes the two branches, evolution of the race, and evolution of the individual. It is in this way that Mr. Romanes has approached the subject in his recent admirable work, *Mental Evolution in Man*. I think I cannot do better than conclude this paper with a brief sketch of the psychological results which he has obtained and set forth at length in that work, harmonising, as I think they do, so fully with the general logical and physiological outline which I have just attempted to give.

In the historical method, the distinctions are taken between actual stages, earlier and later, succeeding one another in the life of the individual or of the race. What Mr. Romanes has done, is, first, to interpose a class of mental states, to which he gives the name of Recepts, between the classes of merely remembered percepts on the one hand, and fully developed logical concepts on the other; and then, within the classes of Recepts and of Concepts, to mark out, by means of carefully made and luminously marshalled observations, two subdivisions, a lower and a higher. These four classes, lower and higher recepts, and lower and higher concepts, are then shown to be represented by distinct stages in the life of the human infant.

I put together, mostly in his own language, the following brief statement from his general summary. We have at p. 395-6:

1. Mere memories of perceptions:—Locke's Simple, Particular, or Concrete ideas.

2. Recepts:—Locke's Complex, Compound, or Mixed Ideas. Their "orderly grouping is due to an unintentional or automatic activity on the part of the percipient mind." Expressed by *Denotative* terms, not general, but only *generic*.

3. Concepts:—Locke's General, Abstract, or Notional Ideas.—Due to an intentional and self-conscious activity of the mind, reflecting on its ideas as such, i.e., as distinguished from the objects which they represent, and therefore as being either true or false. Expressed by *Denominative* or *Predicative* terms; not merely generic but general.

This lies at the basis of the further classification which meets us at p. 403-4, where Recepts are again distinguished into lower and higher, and Concepts the same. Of these,

1. Lower Recepts are common to the higher animals and very young children.

2. Higher Recepts are peculiar to children as they grow up, but prior to the dawn of self-consciousness.

3. Lower Concepts are the self-conscious naming of *Recepts*.

4. Higher Concepts are the self-conscious classification and naming of *Concepts*.

I welcome these results because they contain so distinct a recognition and attestation of what I have long maintained to be the cardinal governing distinction in the psychology of consciousness, I mean that between spontaneous and voluntary redintegration. For the great class of Recepts belongs plainly to the former, that of Concepts plainly to the latter. At the same time it is clear that the distinction between spontaneous and voluntary processes does not strictly coincide either with the demarcation between any two of the historical stages marked out by Mr. Romanes, or with that between Recepts and Concepts generally. It is rather one which runs down through all the historical stages of development, and through both the groups of empirically distinct states which Mr. Romanes calls Recepts and Concepts. Recepts are not *wholly* spontaneous or automatic, nor are concepts *wholly* volitional. The greater or less prominence and importance of one or the other character is that which justifies the name given to either as a whole.

In the earliest days of the newly-born infant, for instance, there is doubtless volition mingled with the trains of spontaneous redintegration, which are set up, maintained, and chiefly governed, by the sensible impressions which are continually beating upon his brain through the organs of external sense. He is learning to perceive what adults call the ordinary world of objects. But his volition is

directed to produce rather than to modify this perceptual result. What it modifies is the order of primary precepts or perceived sensations, the lowest perceptual data, as they are given in actual presentation; as, for instance, in putting together in redintegration certain groups of visual and tactal perceptions into the complex perception of "things," and distinguishing such "things" from sounds, which are perceptions of a different sense, though arising in close connection with them. Even in this earliest stage of life the properly volitional or conceptual act is present, modifying that order of perception which is originally enforced by presentations, and which is afterwards spontaneously or automatically reproduced in redintegration.

But the modifications so introduced become themselves, in many cases, permanent, and are reproduced again and again in spontaneous redintegration, precisely as if they had originally been due to externally presented perceptions. Hence no stage of conscious redintegration is without constituents belonging to both kinds. There is always some spontaneous pabulum being supplied to, and modified by, volitional and conceptual action, and on the road towards becoming again a part of the permanent and therefore spontaneously recurring furniture of the mind. The perception of self, or self-consciousness in the full sense, that great turning-point in the history of individuals upon which Mr. Romanes rightly lays so much stress, is but a perception of a particular kind, which depends upon attention to distinctions perceived in consciousness simply, and which therefore arises just in the same way as the perception of ordinary external objects has been described as arising.

Now the conceptual act, which runs through and accompanies all the historical or evolutionary stages of intelligence, and not any one of those stages in particular, is what Logic has in view, when it speaks of concepts, universals, or general terms. It thereby contrasts these with their originally perceptual and afterwards spontaneously reproduced data. Redintegration is the field to which they belong, and which they divide exhaustively into the two distinct but inseparable members—spontaneous and voluntary redintegration. At the same time it is clear that, in order to do justice to the phenomena so described, Logic must consider and study them in the instances where they are found in their most complete and developed state, that is, in the last of the four historical stages discriminated by Mr. Romanes. It is in fact to that stage that Logic itself belongs, being a system founded on conceptual criticism of conceptual processes, and therefore, at least in point of kind, one among the most highly developed exercises of intelligence.

THE DISTINCTION BETWEEN SOCIETY AND THE STATE.

By J. S. MANN, M.A., Fellow of Trinity College, Oxford.

It is a matter of considerable difficulty to turn one's attention from real politics—especially when they are of so peculiarly exciting a nature as at the present time—to the ideal politics of German political philosophy. And the operation is not assisted by the fact that the antithesis of State and Society—first, I believe, formulated by Hegel, and now a common-place of German writers on *Statsrecht* and *Ethik*—touches actual political questions in more points than any other doctrine to be found in their works. The Dock Strike and boycotting in Ireland, Protection in the United States and the manifesto of the German Emperor, the Fabian essays on Socialism, and the recent discussions of "Absolute Ethics" as applied to property in land might all be cited to indicate the importance of the antithesis—or of something like it—in approaching the consideration of concrete political phenomena. Indeed, one of the best-known of German writers on Socialism, who has also been Minister of Finance in Austria, Dr. A. Schäffle, has treated the recent strike of coalminers in Westphalia with special reference to this antithesis. But, of course, I do not propose to refer (except incidentally) to these concrete political questions. I need hardly say I do not think they can be solved except by experience. The sole value of these conceptions, as far as I can see, is that of the conceptions of abstract Political Economy; they enable the investigator to make some kind of rough provisional classification of his facts. Just as it is convenient to have the conceptions of Economic Rent and Market Price, even though the subjects of consideration may be metayer tenants and doctors' fees, so it is convenient to have the conceptions of Society and the State—as formulated e.g., by Lorenz von Stein—though the State may not have proceeded from Society, and though the two may be aspects not of the same concrete group of phenomena but of different and overlapping groups. I propose, therefore, to state the antithesis, and to deal as far as I can with its historical genesis; and then to consider how far it is valuable as a purely subjective and

regulative mode of approaching the phenomena. Its objective—that is to say, its historical—value it seems to me impossible to maintain.

The doctrine as far as I have been able to gather it seems to me to be this. A given social organism may be looked at in two ways. On the one side it may treated as a collection of individuals each aiming at satisfying his own wants—each therefore purely self-regarding, and using every other individual simply and solely as a means to the attainment of his end. But these individuals naturally group themselves into classes—artisans, agriculturists, various professional classes, unskilled labourers, &c. Mainly their activities in satisfying their own wants are economic. But it is possible that they may arrange among themselves as to rules of common life, means of preserving the peace, tribunals for arbitrating in disputes. The body then resembles what some Greek philosophers treated as the essence of the State—as *συμαχία τόπῳ ἐιαφέροντα τῶν ἀλλων*—and modern German philosophers have called the “Rechtsstat:” the aim of which is simply to secure the equilibrium of rights and duties among its members; or what English political philosophers know as the Individualist State, the aim of which is to secure to every man as far as possible the liberty to do as he pleases—limiting the liberty of each only by the like liberty of all. It is of course conceivable that such a state may exist. Approaches to it are seen in new countries, in mining camps for instance. So when, during a strike, the police stand aside, the men’s union sets pickets who occasionally intimidate, and the masters’ union hires police from private firms—as is done sometimes in the United States, that is an approach to Society apart from the State. But this, according to the supporters of the antithesis, is not the true State. The State arises, according to Hegel, from Society, to ensure that the individual shall be fully realised, chiefly through his own conscious action. The State guarantees him his individuality, which Society with its self-seeking struggle of competitors tends to efface. He is absorbed in the State partly unconsciously and involuntarily through its compulsion, mainly, at least, when the State is fully realised, through his own conscious action. He treats the State as an end, acts consciously for it and finds his own personality in its highest development secured by it: so that the State is the result of the conscious activity of that principle which in nature is unconscious—“the movement of God in the world.” While according to the modified antithesis as formulated by Stein, and substantially, I think, adopted by Mr. Alexander, the State arises to keep the peace between the various strugling, conflicting, self-seeking classes of which Society, that is the economic organism, is composed. These tend to get the mastery over it, and “exploit” the State in their own

interest. But the right relation is attained when the State, like the philosopher in Plato's Republic, keeps each class in its own place, and ensures that none meddles with or "exploits" any other.

Apparently the antithesis was first formulated by Hegel, as a result of his doctrine of development. Society was interpolated between the family and the State as the opposite of the former, and the necessary condition of the development of the latter. But the distinction was found to have practical value, and has been used, for instance, by L. von Stein in dealing with the history of the French Revolution; by Hillenbrand in his treatment of the history of early Greek political ideas; and by modern ethical writers in their treatment of the conditions of the moral life; while the article I have referred to by Schäffle indicates that it has become as much of a commonplace of current discussion on State functions in Germany as the doctrine of Natural Rights formerly was in England, or the conception of the Social Organism is now. Such a distinction, if it had only been invented in time, would have been of considerable value to Plato and Aristotle. It would have enabled the former to distinguish clearly between his primitive "city of swine," which is really a simple form of "Society," and his developed philosophical city, in which "Society" is completely subservient to and controlled by the "State." It would have cleared up the chapter in *Ar. Pol. III.*, where the title of State is denied to *κοινωνία ἀπὸ συμ βολῶν*, and the essence of the *πόλις* is declared to be something more than a particular sort of alliance. But Greek writers wished, like Fichte after them, to make the State and Society as far as possible coincident—to make individual interest wholly subservient to that of the body, and to subordinate the economic to the moral. It is only with the more complex historical facts of modern times—especially of Germany at the end of the last century—that the two aspects of the social organism can be distinguished, and only with the peculiar development of the theory of the Absolute Reason from Kant to Hegel that the distinction comes to be actually made. We may, I think, trace an approach to it in Fichte. Kant had, of course, revived the Contract-State as an ideal of the moral reason. Each individual reason setting laws for itself, set them for all other rational beings in the like conditions, and so had posited a "kingdom of ends" in which every rational being was at once ruler and subject, and in which, by a contract posited by reason, the liberty of each was limited by the like liberty of all. But when Fichte, adopting in the main this State, treated these rational beings as emanations from the Absolute Reason, or at least controlled by it, it was only a step to regard that Reason as guaranteeing their equilibrium—that is, to apply the conception to the concrete, as guaranteeing the maintenance of the

rights of men as rational beings, and of all they required to maintain themselves as such. Transferred into the concrete, then, this gives us Fichte's "closed commercial State," which is to have no foreign commerce, if possible, or if this is impossible, then all foreign trade is to be conducted by the Government; which is to be maintained by the Ephorate, a sort of modern Areopagus of the wisest and best, and in which the place of cotton, coffee, wine, and such other foreign goods as seem to have become necessities of life, is to be taken by some kind of more or less adequate native product, while foreign goods which are absolutely indispensable are to be purchased only by the State—an anticipation of "protection to native industry" too complete and too absurd to have yet found realisation, though I believe something like it has been attempted in Portugal and is adding to the economic woes of that misguided country. It is when the Absolute is found to develop by antithesis—I must apologise for the inexactness of my terms—that the distinction is actually formulated by Hegel. And it may be that the antithesis is worth accepting by the scientific sociologist, though not as representing historical fact. For it is not now the fashion to regard the family as the first stage of mankind—at least of the men with whom the sociologist deals; the stock-group differentiates into totem-kins, and the combinations of these are neither combinations of individuals nor results of conscious contract, while there is abundant evidence that the members hardly attain to the notion of individual self-satisfaction till long after the city-state has been established. Society, indeed, in Hegel's or Stein's sense would seem to develop long after the State.

For the State of early Greece or Rome is not one State nor is it Society, but two States—a patriciate and plebs—with partially concurrent powers: States which certainly have not arisen by anything like contract, for the inferior order seems to arise by the gradual accretion of immigrants and descendants of freed slaves; States, too, which do not correspond in the main with economic divisions of Society, and whose gradual unification goes along with economic differentiation. Then, again, can we say that the State "adopts the organisation of Society"? The State constantly interferes with economic organisation, directly or indirectly, as the Tudor monarchs facilitated the economic change from mediæval to modern ideas of landed property; the Greek *τύπαννοι* gained their historical importance by effacing the old class distinctions; the French Revolution owed its importance to its reconstruction of economic relations, and spent itself when that work was done. May it be suggested that Hegel's conception of the antithesis is partly reminiscent of the Social Contract, partly due to the circumstances of Germany in his time? In Prussia there were definitely marked orders or "estates," nobles, burghers, peasants—

each class with defined legal rights, especially with reference to landed property, and each with corporations, trade guilds, &c., to defend the interest of its own sub-divisions. Everywhere in Europe there had been similar "estates," and the mediæval State, as Bluntschli has noticed, had its unity infringed by the privileges of these orders; true, the modern State had arisen and absorbed them, but the development is an incident of European custom. But though we may not accept the antithesis as historically exact or as universally valid, we may perhaps take it as a convenient result of analysis of any given political organism at the present moment.

But there are two reasons against accepting it as anything more than an artificial antithesis.

1. The view that a modern population consists of classes is not entirely exact, and probably will be less and less exact as the introduction of machinery, the division of employment, and the diffusion of property increase. To Fichte it was obvious that an artisan or a merchant was a very different person from a small landed proprietor, partly because the laws made a difference of status, and a watchmaker from a shoemaker, because both are manual labourers of different trades. But one of the ideals of modern individualism—partially realised in the United States and Australia—is that the artisan shall be a small landed proprietor; and with the introduction of machinery and of technical education it is not impossible that the minuter subdivisions of many trades may become so similar that transference from one to the other will become an easy matter. To quote an American writer, "A shoemaker cannot become a watchmaker, but a 'laster' in a shoe factory may turn to one of the many trades into which the Waltham watch industry is subdivided." If besides this the workman is a co-operator, i.e., has an interest in a producing and distributing agency, if his savings are invested, perhaps through a Trust, in various other producing agencies, and he has leisure time for other things besides his work, and also good general education, it seems absurd to treat him as in a class at all—he has so many points of contact with other classes, and may so easily shift his work. Yet this is the ideal of modern Individualism and, except as to the investments, in some degree of Socialism.

2. A more important objection to the antithesis is that Society never has been an aspect of the same body as the State. A Greek city was meant to be *αὐτάρκης*, but this was a mere ideal, prompted partly by military necessities and partly by the desire to ensure stability in ideas and modes of thought. A mediæval society was so to some extent, and in Europe, down to the end of the last century, it was the aim of the mercantile system to keep up the

self-dependence. But despite all efforts at Protection, modern societies are tending to be less and less self-dependent. Mill's theory of International Trade is objected to by some authorities on Political Economy, on the ground that his non-competing groups tend not to be identical with nations: and that capital and labour tend to that freedom of movement from country to country the absence of which is the basis of the theory. Certainly the " disinclination of capital to emigrate," put some ten or fifteen years ago at two per cent., is not that now: and when we hear of Spanish and Italian labourers going over to the Argentine Republic simply for the season, we may regard the disinclination of labour to emigrate as disappearing also. Still less is a people self-dependent in the matter of mental culture; while Hegel's State, never realised in practice, seems, so far as it is realisable at all, to be better expressed by the Comtist Humanity.

Still it is convenient to keep the distinction as a merely subjective distinction. A political body, in so far as it is an economic organism, may be called Society, in so far as it is concerned with the protection of individual character and development of individual freedom it may be called the State. What is the proper relation between the two?

I have said enough to show that I think this can only be settled empirically. I have only time to point out—

(1.) The treatment of the State as something more than an aggregate of individuals gets rid of a good deal of the common talk about the importance of the odd man, the absurdity of supposing that the decision of a majority is necessarily right, the iniquity of making, in a state of say 100, 49 people submit to 51, and the like. Political questions are decided (ideally) by a majority of votes after discussion, and the fact that 51 out of the supposed 100 vote one way implies that a good many of the 49 nearly agree with the 51, and a good many of the 51 nearly agree with the 49. The majority is not polling uniformly against the minority. Politics is not a mere " tug of war," and political questions are not habitually unsettled as soon as settled, simply because they are so largely the result of compromise. The irreconcilable faction in a State is always a mere fraction: that is, there is a sort of "general" will ascertained by asking people if they care, and getting a public statement of varying strength representing how much they care—a will that is partly the result of conviction, partly of imitation. If we remember that it is only a way of putting it, I do not see why we should not adopt an "*à priori*" conception of the State to express this feature in political progress.

(2.) The business of the State is *protection* and furtherance, if possible, of individual self-development, not satisfaction of wants.

It is only such protection that can justify the State in taking up the latter function, and it is with this object that Schäffle proposes that the Westphalian coal mines shall be made public institutions. It is, however, the business of the State to protect its members in their employment if they cannot do so better themselves by factory inspection, &c., and to secure their lives and the public peace by a poor law.

(3.) But there are forms of supply of economic wants which may very well be carried out *not* as modes of State activity, but on the basis of the facilities for combination afforded by the State or municipal organisation—*e.g.*, gas and water supply, post and telegraphs, &c.—provided that they do not interfere seriously with individual development. But there is no short cut, no “high *priori* road” to settle these questions. The use of abstract conceptions is not to give final rules, but (1) to classify and synthesise phenomena; (2) and sometimes to stimulate. And if we can only so apply Hegel’s conception of the State as to get every one to vote and to take some interest in politics, it will not have been conceived in vain, however untenable it may be in itself.

SYMPOSIUM—THE RELATION OF THE FINE ARTS TO ONE ANOTHER.

I.—*By BERNARD BOSANQUET, Vice-President.*

It is apt to be objected to philosophic enquiries that philosophers assume the unity of all that is commonly designated by the same name. This objection seems to neglect the fact that there is usually a preliminary discussion as to the limits of the subject to be enquired into, directed to ascertaining how far any unity of principle extends, that makes possible a unity of treatment. Thus, in Fine Art, we being by excluding didactic poetry at one end, and architecture, with its subordinate crafts, so far as conditioned by pure utility, at the other. We thus confine the matter in hand to what may be roughly described as expression for expression’s sake, in sensuous form. If there were two wholly independent principles concerned, incapable of reduction to common terms, such as beauty and sublimity, I should set the subject down as incapable of scientific treatment. But I do not believe this to be the case.

On the other side there is, I think, a corresponding pit-fall in

arranging the scheme of the Fine Arts by any quite abstract principle, or according to any quite abstract analogy.

I may illustrate the former tendency by classifications founded on the spatial, temporal, or spatio-temporal, character of artistic expression; or again, on its aspects of simultaneity, succession, or simultaneity and succession combined. Neither of these principles will bear precise criticism, because the harmonic structure of music upsets them both, and neither of them really grasps the concrete matter to be classified. They are like the principles of the Linnæan botanical arrangement. Of course they represent conditions which must not be forgotten.

Still worse, I think, are the schemata based on parallelisms and abstract analogies, such as the parallelism between the real and the ideal series, which means, as a rule, between the arts of form and music, and the various species of poetry. Schelling is responsible for this suggestion, which has had great influence and caused great confusion. He also is responsible for another abstract analogy, the comparison of music and architecture—"architecture," he said, "is a frozen music;" we think at once of Browning's *Abt Vogler*. Quite recent and very able writers on æsthetics have striven to get music and architecture into corresponding places in their schemes, under the influence of this comparison, which rests, I suppose, on two very interesting points. First, that neither music nor architecture is directly imitative; and secondly, that both depend a good deal on numerical ratios and on something that may be called rhythm. Schemata founded on parallelisms like this make the history of æsthetic classifications like the history of a kaleidoscope; I should think that nearly all the permutations must have been proposed as arrangements. The fact is that resemblances of this kind can be found between any pair of fine arts taken at random. The problem is one of a natural classification, which involves weighing and analysing the attributes to get at the radical or constant or governing attributes.

I would take the several arts, then, quite in the concrete, and examine them on their merits as to what they severally can or cannot do. I would not begin even by generalising them under the modes of sense-perception to which they appeal, excepting for one purpose, that is, to distinguish perceptions capable of æsthetic quality from perceptions which cannot be æsthetic. It is fair, of course, to take a general attribute as a distinction between a whole sphere which possesses it, and an outer part which does not, and it is undoubtedly a remarkable fact that only sight and hearing are capable of æsthetic perception; or, if it is maintained that pure touch without sight can apprehend the beauty of a pattern in relief, or of a statue, then we

must take in touch so far as it deals with solidity : I mean as distinct from the feeling of heat and cold. I suppose that the characteristic which makes these senses capable of being channels of the aesthetic perception is their ability to appreciate a structural whole, which seems to differentiate them from the senses of taste and smell, or of touch as dealing with mere heat and cold.

Within the range of these aesthetic senses, then, it appears to me that the proper mode of treatment is to take the several fine arts as we find them and analyse the expressive powers of the various physical media by which they appeal to sense-perception. Afterwards we may try to generalise from their expressive powers, and show, if we can, how they correspond to various human needs of expression, or how nearly they exhaust the modes of utterance possible in space and time. Of course I can only attempt very roughly and scantily to illustrate in what sort of way this might be attempted.

I said "the expressive powers of the various physical media employed by fine art." Is it not enough to say, "the sort of sense-perception stimulated by each"? *Prima facie*, I think not; though ultimately, perhaps, all differences of expression may be taken as appealing to different sympathies or tendencies in our sense-perception. But within sculpture, for example, and appealing therefore to the same sense-perception, bronze, marble, and wood have different expressive capacities. Within pictorial art, again, water-colour and oil-colour have different capacities. "Black-and-white," I suppose, does appeal to a different sense-perception from these, not delighting the colour sense as such. These two comparisons between oil and water-colour on the one hand, and between colour and "black-and-white" on the other, just illustrate the difference between a distinction founded on the capacity of the medium and a distinction founded also on the nature of the sense appealed to. Even in the ideal art of poetry the distinction of medium persists; you cannot get the same effects in the French and Italian languages as in the English or German.

Thus the whole question seems to me to turn on the power of the medium employed by fine art. Of course a particular material may not have imposed itself from necessity on the human race, though it would be very important to consider how far in some cases this actually occurred, but even granting that the material was freely chosen for the sake of its powers of expression, these powers of expression are the actual guide and limit of the art as practised.

What expressiveness can be found, for example, in a piece of marble, assuming that you do not mean to colour it, and that you are not compelled to adapt it for a place in a building? Hegel says that what you render in sculpture is "shape in its abstract spatiality,"

which suitably expresses repose. This is illustrated if you ask what you can *not* do with marble, always omitting very extreme *tours de force*. You cannot have a very deep perspective, unless you simply draw in incised lines. There are old friezes, with the town wall drawn on them in incised lines, but this would be much more naturally done with colour. Not handling perspective easily, it is natural not to handle it at all, but to give the third dimension in full, which is quite easy with a solid, homogeneous, and beautiful material. But if you do this, that is, if you sculpture in the round, you cannot have a very comprehensive group of figures, because their unity is not idealised, that is, not represented to the spectator's perception, but they straggle over real space. And, for the same reason, you have no control over the light and shade, and you cannot give any surroundings, to explain and enlarge the action of the figures. The surroundings are real, and may indeed be *appropriate* to the sculpture, as a Greek temple no doubt was; but you have no means of making them a *part* of the picture—the ideal scene—to which your sculptured objects belong. There is nothing in the nature of the material, I believe, to hinder a much greater expressiveness of the human face than the Greek artist attained to; but a certain harmony with the effects of these other conditions may interpose an artistic difficulty, because a high degree of expressiveness would seem somewhat unexplained.

Further, you cannot represent any but rather solid forms; hair and drapery must be treated under obvious limitations, though it may be doubted whether, in addition to the *actual* limitations of the marble, we ought to bring into æsthetic perception *our knowledge* of the difficulties of the marble, as when we dislike marble lace-work, and so on.

You cannot represent landscape: I suppose its forms are either impossible in marble, or else not of sufficiently concentrated significance to be taken in such a limited extent. What could you do in sculpture with the forms of grass or trees? While again you cannot represent, within the limits of sculpture, a precipice large enough to be of æsthetic value; though its form might give you no difficulty. Besides this latter would be almost the reality itself, without any distinction to mark that it had been idealised; and this is fatal to art.

Of course all this only applies to bronze *mutatis mutandis*.

It follows from these considerations that in sculpture the stereometric form must be considered very largely in detachment from external relations, and on its own merits as a simple unity. The repose of Greek sculpture has been very much exaggerated, but the character of the limitation remains. The art of sculpture admits,

compared with the other arts, of very little ideality, that is, of very little subtlety or variety of intellectual or emotional interpretation. Compare it with an art which can place before the eye, in a position determined once for all, a section of space itself idealised, and containing all its objects and their relations and interactions also determinately idealised by the artist's mind, and we see at once how enormously increased is the burden of meaning which the more differentiated and less solid material will bear.

In view of such facts as these, it seems to me a very obtuse acuteness on the part of Von Hartmann to maintain that the weight of the material has nothing to do with the question, because the perceived image has no weight, and the essence of art is in the perceived image. The question is what conditions determine the perceived image, and therefore the kind of meaning that can be put into it; and these conclusions are summed up in the nature of the materials employed by the several fine arts.

But then, no doubt, we should have also to consider why the arts dependent on certain kinds of material, reach their high-water-mark, or a high-water-mark, at certain crises of human history; but this enquiry does not fall within the present subject; and again, how there are formed those specific types of artistic fancy which are the mental mode of being of the several fine arts. The fancy of the poet, the musician, and the painter, differs on a large scale as the fancy of the iron-worker, the wood-carver, and the decorative stone cutter, differs on a small scale.

Thus though in its most general sense the substance and matter of all fine art is the same, issuing from the common source of the human desire for expression, yet the region of fancy corresponding to each medium of utterance is moulded by intercourse with that medium, and acquires an individuality which is not directly reducible to terms of any other region of æsthetic fancy. Feeling, in short, is modified in becoming communicable; and the feeling which has become communicable in music is not capable of re-translation into the feeling which has become communicable in painting. Thus the arts have no doubt in common a human and even rational content—rational in so far as the feelings which are embodied in expression, for expression's sake, arise in connection with ideas and purposes; but each of them has separately its own peculiar physical medium of expression and also a whole region of modified feeling or fancy which constitutes the material proper to be expressed in the medium and according to the laws of each particular art. Humour is a general quality in feeling; but the painter's humour is one thing, and the musician's humour another. They have a common root, but are not directly reducible to terms of each other.

It will be seen from the instance of analysis which I gave, that I agree on the whole with the view which arranges the arts in a linear series, according to increasing intellectuality or ideality, in the order, Architecture (only in part a fine art), Sculpture, Painting, Music, Poetry. I do not think Painting is much more akin to Sculpture than to Music, and therefore I object to classing the arts of Sight together as against the arts of Sound. Unquestionably, however, there is a breach of continuity at Music, in the one respect that it is not based on imitation in anything like the degree in which Sculpture and Painting are. Still this is not *altogether* out of order. Painting, though in some respects a more perfect imitation of nature than Sculpture, yet on the other hand, as we saw, is immensely more subtle, suggestive, and much more completely ideal in its means of imitation. It is not an unnatural transition from the painter's subtle evocation of the spirit of natural forms to the art of Music in which the natural forms are dropped, and the spirit of movement and feeling seems to be displayed in its purity, as the soul of an organised action. Here, for once, I think, Lotze is exceedingly felicitous ("Geschichte d. Aesthetik," p. 486-7) in, apparently, following Hanslick, who says that Music gives us the dynamics or general figures of occurrence; and enlarging this to mean that what we have in Music is the rhythm and abstract scheme of organised existence and occurrence, implying the various values of this rational movement for feeling. I might illustrate this, merely repeating what I have been told—for I am no musician—by reference to dance music, which appears, *qua* dance music, that is, as played for actual dancing, not to have great artistic value. So I suppose that the Scherzo, which embodies the spirit of the dance, does so in an idealised form, reproducing, not the actual idea of dancing, but merely a certain mood that belongs to it. When the reference is not to a musical phenomenon at all, as it is in this case, then it cannot be specialised, and merely reproduces a possible mood of action or occurrence in general.

In Poetry the idealisation becomes complete, in the sense that the units of expression are fixed symbols for ideas, which the artist can only modify by combination. He, therefore, may be said to operate with ideas as his medium; but I do not admit that beautiful arrangement of sounds can be dispensed with in Poetry, and I think that he who reads, going straight to the idea, and not perceiving the sound of the word, does not treat Poetry as Poetry at all. It, therefore, seems to be within the definition of "expression in sensuous form," although even the sensuous value of the word-sounds employed depends, secondarily, on their ideal value, that is, on the emotions which they evoke. Ideality has here reached its highest point,

compatible with fine art ; and when the communication of the idea substitutes itself as a purpose for the need of expression in sensuous form, the limit of art is overstepped and Poetry becomes didactic.

The abstract principles of progression from space to time, and from simultaneity to succession, agree with the view here adopted, but deal with very superficial aspects of it.

II.—*By E. WAKE COOK.*

THE Fine Arts do not readily lend themselves to philosophic treatment, the quality constituting them "Fine," as distinguished from the Industrial Arts, is the very thing which eludes analysis, and is struggling with the problem we try to shape as thought much that is still essentially feeling.

Our difficulties begin at the outset. I agree with Mr. Bosanquet, that the one principle in which the Fine Arts have most in common is that which he describes as "expression, for expression's sake, in sensuous form." But to make this principle applicable, important limitations have to be imposed on the subject. Didactic Poetry, for instance, has to be excluded. If to beautiful expression in poetry be added a high purpose, then the poem is taken out of the range of our unifying principle. This is serious, as it implies a divorce between Fine Art and the higher utilities—to the manifest impoverishment of Fine Art. If, therefore, Fine Art must be shorn of its fair proportions before it can be adapted to philosophic or scientific treatment, it would be better to wait for the deeper view of the purpose of life, and the function of Fine Art which the progress of knowledge is bringing us. If, for the sake of argument, we admit the preliminary limitations, then Mr. Bosanquet's application of the principle is luminous, and I find myself largely in agreement with him. So instead of criticising his paper in detail, I will roughly sketch my own view of one phase of the subject, an aspect which will be most complementary to his—the relation of the Fine Arts to one another through their relation to the function of beauty in promoting the higher utilities. This principle will not meet the case so well as that selected by Mr. Bosanquet, being much less definite; but it has the advantage of imposing no arbitrary limitations.

Philosophy is nothing without clearness of definition and precision of statement. And yet there is a sense, a certain limited sense, in which every thought that can be defined with absolute precision is already out of date, it is a fossil, a shell from which life

has departed. All is in flux, of change, of transformation, of transmutation ; apparent fixity is but invisible motion—the “sleep” of the spinning top. There are no isolated facts, all are related. To isolate them even in thought is to falsify them to that extent. There is an unity underlying the manifold, and while we can handle, classify, and arrange phenomena, we *feel*, or should feel, the presence of the unexplored remainder. Every phenomenon has its roots in infinity. Great as the advance of knowledge has been, its significance lies in its promise rather than in its achievements, it shows how vast are the fields yet to be explored. Therefore, a right relation of mind to clearly defined facts is to regard them as symbols of grander realities. In shaping our thoughts, then, we should aim at enriching them with that accompaniment of feeling which makes us dimly sensible of the underlying relations of our thought, which we have isolated by the very act of conception. This feeling, or dim consciousness of a beyond, which, in scientific matters, corresponds somewhat with Faith in Religion, I shall call by the non-committal term of *Mental Feeling*. It is potential thought, thought not yet crystallised into forms. It is therefore higher than thought, as it is the substance of thought yet to be. Now, it seems to be the peculiar mission of the Fine Arts in conveying facts to arouse this music-like accompaniment of mental feeling. They all have the indefinable something called Beauty as an object. Examine all the attempted definitions of Beauty, none cover the ground ; it is always something more and other than we can say of it. If I might add a suggestion, I should say it is a dim perception, by another sense, of that complex of underlying relationships which are shut out by the defining, and abstracting, operations of the Scientific intellect.* Beauty is prophetic, it suggests something beyond, and woos to knowledge. Beauty of statement stimulates the mind to dimly restore the manifold and life-giving particulars eliminated by scientific abstractions. This is in addition to the expectancy it produces, which vaguely feels the presence of those elements not yet grasped by Science. Beauty, in this view, is an indispensable element in the presentation of truth. So, while beauty and truth are not convertible terms, we cannot have truth, in any large sense of the term, without beauty ; as our highest definable thought must fall short of the reality, and must therefore be untrue unless accompanied by that feeling of the infinitude beyond : and beauty arouses this feeling—this fluid thought—into fullest activity.

* This, of course, is only one phase of scientific activity. It also reconstructs and unites ; but it deals throughout with abstractions shorn of life-giving particulars.

Let me illustrate one phase of this function of artistic beauty—the Picturesque. This is that quality which takes us beyond the here, and now, and suggests the history and the destiny of the picturesque object. This explains the curious artistic delight in tumble-down old buildings, grimy and uncomfortable to live in, and extremely bad property to own. The time and weather stains, the cracking walls and bending roof-tree, all tell a history of time, and of battling with the elements. These suggest the history of the inhabitants, their struggle for existence, and battles with adverse circumstances, their hopes and fears; then the whole of the human and social problems follow in turn. All are there by implication, the tumble-down building is but a symbol standing for them all. Then again, see what a history is in that bit of picturesque rock with its moss-woven tapestries. And again, in that flower, that organic life bursting into beauty. What problems are there? Shut them out from conscious thought, they are still there, dimly felt as a vital part of beauty, of that larger life, of that beyond to which beauty inevitably conducts us. Assigning, then, to beauty this high purpose of giving life to and supplementing thought, we can partially determine the relation of the Fine Arts to one another by their relations to this fundamental function.

Man, as highest product of evolution, is necessarily in advance of his environment, which he at once seeks to transform by means of Art. Building becomes a first necessity; but the creative impulse, the Art instinct, is not content with the lower forms of utility, and passes on to Architecture—to Fine Art. The building is your hard square fact, your sharply-defined thought. Moved by the instinct for beauty the mind hungers for more, and demands the graceful expression of the thought, proportion and symmetry result. The fleeting forms of men, animals, and the floral world, are clearly thought in stone and embellish the structure. Form alone is like thought without feeling, more is demanded, and the building blushes into the glory of colour. Thus, Architecture readily enters into the spheres of the allied Arts of Sculpture and Painting. Architecture is essentially a creative art, but relies largely on the imitative arts for its higher expression.

The relation of the beautiful in Architecture to the higher utilities is manifest. Architecture has hitherto found its highest expression in the service of Religion; and Religion, in spite of its undue conservatism, and its tendency to tyranny, is still the most important of the higher utilities.

Sculpture is the art most nearly allied to Architecture, sharing with it its three dimensions in space. In its sphere Sculpture is the most perfect of the imitative arts; but its sphere is the most

limited, being confined to a given moment of time and to form alone. It is thus a mediator between man and Nature, by enabling us to enjoy beauty of form without the distractions of movement and of colour. In this way it ministers to our limited faculties which are apt to be overwhelmed by Nature's complexity. The further limitations of the sphere of Sculpture imposed by the nature of its material—the media of its expression—have been admirably pointed out by Mr. Bosanquet.

The sculptor is forced into a very full realisation of his forms, and has not at his command that stimulating suggestiveness of partial realisation so valuable in the other Arts. Architecture attains by vastness or by mysterious lighting something of this suggestiveness.

The relation of Sculpture to utility cannot be overlooked. The remains of ancient Sculpture afford a rough history of peoples otherwise forgotten. The sculptors of Greece and Rome have handed down to us the portraits of the great men in whose actions history has given us an almost personal interest. These valuable records would have perished if committed to less enduring material, the material thus compensating for its limitations.

In the purely ideal creations—in the expressions for expression's sake—we have the highest embodiment of the beauty of the human form; and beauty—true to its high function—suggests the future possibilities for the race; and, it may be, has helped forward the realisation of those possibilities—as the Greeks believed—through the mysterious action of the maternal imagination.

To Painting and the Pictorial Arts must be assigned a very high place; like Architecture and Sculpture they speak an universal language, and their educational influence is not sufficiently recognised. How much we are indebted to the pictorial arts for our ideas of persons and places, and of events outside our own experience, it would be difficult to determine. Sight is the queen of our senses, and dominates our language and modes of thinking, it fills our minds with images which form the basis of our thought. Painting holds a place among the arts corresponding to the place held by sight among the senses. It alone can give the outer appearances of things, while words can only recall and re-combine such appearances.

Painting shares the limitations of Sculpture in being confined to the representation of a given moment of time, and being further confined to two space dimensions is limited to one aspect or point of view at a time; but it commands two elements which more than compensate for these limitations. It has the power of giving light and shade—chiaroscuro—an art in itself capable of conveying the most varied modes of feeling, from sombre to gay, from dreamlike

softness to sparkling brilliancy. In addition to chiaroscuro, Painting has the command of the important element of colour.

Colour bears the relation to form that feeling bears to thought, and which Music bears to Poetry. This gives the painter a very perfect medium of expression in spite of limitations. In Painting comes into play a quality having high aesthetic value, the quality of suggestiveness, which is shared by the Arts of Poetry and Music, rising to the highest point in the latter. A picture having all its details minutely elaborated is wearisome, even to the artistically uneducated. The imagination demands a playground, and resents having all the lines of its activity laid down for it by the artist. It demands stimulation, direction, and material for its creative activity. That picture is best which realises with great thoroughness the leading features of its subject, and surrounds them with a wide margin of mystery, and a wealth of stimulating suggestiveness which the spectator may co-operate in imaginatively fashioning as his feelings may prompt. The picture is thus a symbol of all knowledge.

The painter can give not only the dramatic action to his figures, he can surround them with suitable landscape and other accessories altogether out of reach of the sculptor. This is expressed with admirable terseness by Mr. Bosanquet; but as the point is important I must enlarge on it somewhat.

These pictorial accessories—especially landscape accessories—may stir memories, and induce moods of feeling in the spectator which will immeasurably increase his appreciation of the main theme. Every event of our lives writes its impress somewhere in our beings, every emotion somewhere leaves its trace, and our sweet or our saddened memories merge imperceptibly into these forgotten impressions. Every event has had its accompaniments of time and of place, and any work of art which recalls either the one or the other of these will recall the memories connected with them. These memories, imperfect in themselves, on all sides merge into the surrounding mystery, as thought merges into feeling, and to awaken one such memory is to send a sympathetic stir through all the latent chords of our being. Each season of the year, each hour of the day, has associations peculiar to itself, and suggests poetic analogies to phases of human life. The artist, by appealing to this associative faculty and determining its direction, evokes the richest music of feeling.

Every phase of landscape, or seascape, that is feelingly rendered will suggest some appropriate phase in the great human drama, and give the scene an interest not its own.

The modern feeling for landscape, so different from anything we

can find traces of in the past, would be worth separate analysis did time permit, more especially as it seems to be stronger in the British race than in any other, and has expressed itself largely through the peculiarly British Art of Water-Colour Painting.

That artistic renderings of landscape should frequently be so impressive is largely due to the association of ideas on which I have touched.

As Painting is the highest of the imitative arts a word must be said in passing on imitation.

The highest purpose of Painting is by no means to hold the mirror up to Nature, but to reflect back Nature from a *mind*, not from a material, soulless mirror. So much of Nature must be given as will serve to stir into life the latent images imprinted by Nature's self on the mind of the percipient. But suggestiveness rather than full realisation is necessary if the beholder is to receive the highest æsthetic pleasure by co-operating with the artist to produce the result. This is, or should be, the aim of the painter in the sphere of imitation.

In the sphere of composition the artist becomes creative. Taking individual beauties from external Nature he combines them in accordance with a leading idea, and attains an artistic beauty having a value of its own far beyond its imitative results.

That the spatial arts, appealing to sight, so largely eliminate the element of time is a fact of great importance from the educational point of view. At a glance, a picture will convey a more vivid impression of the appearance of things than a ream of description, and the ideas so obtained will dominate all others.

In various ways the artists have wrought more wisely than they knew, and in following beauty for beauty's sake they have unconsciously supplied an essential element of education, and the instruction so imparted has been received with high pleasure, and with no effort. But this is only one of many points of contact between the pictorial arts and utility.

In passing to Poetry we are sensible of a great change, another sense is appealed to, and from the spatial character of the preceding arts appealing to the eye, we pass to an art addressing the mind through the ear, and one capable of representing time, and time is occupied in the representation. Still it stands nearer to the pictorial arts than Music does, because it deals, like them, with definite ideas and images, which Music does not. But Poetry differs widely from the preceding arts. It is quite another phase of spiritual activity, has other methods and a wider range than any of the other arts. It has the whole realm of thought at its command ; Religious, Philosophic, and even Scientific thought may be expressed, or partly

expressed and receive new life, beauty, and vividness in the expression, while it may charm the whole realm of the emotions as peculiarly its own. In dealing with the visible aspect of things, Poetry can only recall images already visually impressed on the mind, or some imaginative transience of them, and these must bear the relation that a memory does to the sight of the actual thing—much weaker and more generalised. But in the region of the emotions—on the other side of Matter and its visual appearance—poetical expression has unrivalled power.

The Limitations of Poetry are the Limitations of Language, its univocal appeal is checked by the confusion of tongues.

What the essential nature of Poetry is, apart from mere musical expression, it is difficult to determine. When the term "poetical" is applied to the products of the other arts, as it frequently is, it is the idea that is referred to, not its expression. There is a Poetry of idea, and the Poet is distinguished from the versifier by the nature of his ideas, rather than by superior sweetness of expression. The Poet sees the symbolic value of common things: at his highest he is "prophet," "seer," "instructor of his age." All the highest products of the Poets are in a sense "didactic," and liable to be excluded by Mr. Beaumont's proposed Limitations, while the versifier who lets sound dominate the sense would be included. This is like taking men who talk for talking's sake as representatives of the great orators.

Poetry being expressed purely through symbols attains a very high degree of that suggestiveness on the value of which I have so largely insisted. In Browning this has been carried to its highest point, and, in spite of his occasional ruggedness and obscurity, there is a fascination about his works which does not belong to more fully and more perfectly expressed ideas.

In passing to Music we are conscious of a distinct but complementary change, we take a longer step than that from the plastic arts to Poetry. For Music have been put forward very high pretensions by Schopenhauer, and by the most splendidly gifted of all musicians—Wagner. Following Schopenhauer in his great work, "The World as Will and Idea," Wagner contends that whereas the plastic artist deals only with phenomena, which are the expression of the Will—the thing in itself, Music, is a direct expression of the thing *per se*, is not mediated by phenomena, and is therefore a step nearer to the great fountain of all things than any other form of Fine Art. Music is an universal language immediately intelligible to all without the mediation of intellectual conceptions. "Music itself is an Idea of the world, which, could it be translated into rational concepts, would give us a philosophy explaining the world."

It is further argued that a *cry* is the most direct expression we can have of the Will. But a feeling must precede even the cry, and on this lower ground, that of the direct expression of feeling, I should place Music, and distinctly lower than Poetry, which can express both feeling and thought. But feeling must be taken in its widest sense, and include that mental feeling which is potentially higher thought. This is, probably, nearly all they would contend for.

Music is the organised and developed expression of inarticulate sounds—the laugh, the cry, and all other sounds expressive of inarticulate feeling. Almost every mood has some suitable sound through which it gains partial expression, and the sounds imitated by the musician will recall the various moods. With the moods will be dimly recalled the experiences connected with those moods. Thus, Music may be endlessly suggestive, and awaken mental states of wonderful richness and complexity. This, I contend, is the function of beauty, and Music is beautiful in proportion to its stimulating suggestiveness, to its power of giving not only sensuous delight, but of arousing mental feeling. Music in its highest expression is vocal, and becomes wedded to Poetry; it is the union of thought with feeling and movement simultaneously expressed.

Man's manifold phases of thought and feeling cannot be adequately expressed by any one of the Fine Arts, they are all complementary and tend to coalesce. Poetry and the Actor's Art in the Drama, which receives its setting from the Painter; Poetry unites with Music in song and chorus, and in Opera we have the union of all the Fine Arts. Architecture provides the home, Painting the scenery, the costumier—the artist in personal adornment—supplies an important element. Poetry is united with Music, and the whole is interpreted by the Orchestra and the varied resources of voice and action of the operatic artists. Here we have a combination of all the arts, a foretaste of an ideal existence, and if the pleasure we derive from the arts separately could be multiplied by the number of the arts combined, we should be fairly overwhelmed in ecstasy. But the limitations of our faculties quickly make themselves felt, and while the means of producing aesthetic pleasure may be progressively increased in geometrical ratio, the resultant pleasure will increase in less than arithmetical progression, and beyond a certain point will become stationary, or decrease.

In these complex products of combined arts, art itself loses one of its main functions—that of ministering to our limitations by supplying us with simplified transcripts of things for contemplation. In Opera the complexity of Nature is exceeded, and we sometimes feel less pleasure from the combined arts than we might receive

from the arts separately. While we may agree with Schopenhauer that music is the best commentary on action, and brings out its hidden meaning, yet, on the other hand, we must agree with Wagner that the highest enjoyment of music depotentialises vision, and the eye no longer perceives objects with its customary intensity. Indeed, sight and hearing in highest activity tend to depotentialise each other. In Opera too much is done for the spectator, and not enough by him, and there is less room for that co-operation on which æsthetic pleasure so largely depends.

From the foregoing it will be seen that the relationship of the Fine Arts to one another is very close, in spite of considerable differences. These differences are complementary, and the arts tend to coalesce. They are evidently all phases of the one spiritual activity, which is spontaneous and irrepressible. The pursuit of beauty and æsthetic pleasure has served to promote the higher utilities. Beauty not only woos to knowledge, but, under this theory, is an indispensable element in the presentation of truth, which is enlarged and vivified by its presence. How much life is intensified and beautified by grand Architecture and by Music need not be insisted on; but we too often overlook the high educational value of Poetry and the pictorial arts as vicarious experience, as enlargers of consciousness, the limitations of which are the source of so many illusions.

III.—*By DAVID G. RITCHIE.*

I do not think we can get a better phrase by which to characterise the principle common to all the Fine Arts than that adopted by Mr. Bosanquet, *viz.*, "Expression for expression's sake in sensuous form." This definition enables us to mark off architecture from mere building, and *belles lettres* from blue-books or from that sort of literature which Charles Lamb left behind him in the India House. The plastic arts may also serve merely utilitarian purposes, in so far as they further the advancement of knowledge; anatomical models, or the illustrations in a scientific text-book, may even possess artistic merit, but they are not *primarily* works of art. Bugle-notes, used as signals, and music, so far as it merely gives the time for marching or dancing, bears a similar relation to music as a fine art. I agree, also, with the arrangement of the arts "according to increasing intellectuality or ideality"; but I think Mr. Bosanquet would allow one to add the caution, that there is a point, not, indeed, very easy to determine, at which the intellectuality or ideality becomes too

predominant to admit of artistic expression—a point at which poetry, the most intellectual of the arts, becomes philosophy, and, therefore, ceases to be poetry. Here, I take it, comes in the controversy between Mr. Cook and Mr. Bosanquet about the didactic element in poetry. To this controversy I shall return.

The arrangement of the fine arts "in a linear series" seems to me open to objection, if we are aiming at a natural classification. It is, I think, necessary to put the arts of *sight* together in one group, and the arts of *sound* in another, not merely because of this difference of sight and sound (and the corresponding difference between *space* and *time*), but because of two other considerations connected with the difference between sight and sound, viz., (1) the affinities of the arts in respect of their *origin*, and (2) their affinities in respect of the *mode in which they are enjoyed*.

(1.) Architecture, Sculpture, Painting—all come from man's taking delight in ornamenting things that he *makes*, clothes, implements, dwellings, and especially when they have a religious significance. The image of the god and the house of the god are wrought and adorned with what seems to their makers the beauty of form and colour. We think of painting as an art detached even from architecture, and possibly only in this detachment can its highest capacities be realised. But this detachment or isolation of the art belongs to a very late stage in its history. Considered, therefore, in respect of its origin and historical development, painting stands in a much closer relation to architecture and sculpture than to music and poetry. Similarly, music, in its original forms, is connected with singing and dancing. Song and dance and playing on musical instruments are the outcome of man's effort to express himself by *doing*, as distinct from making, something.

(2.) What man *makes* remains after him as a possession for others; what he has *done* can only be enjoyed afterwards when it is in some way *reproduced*. Thus, the arts of music and poetry require the existence of certain subordinate "reproductive" arts, the arts of the musical performer (with voice or instrument) and of the actor or "rhapsodist." The copyist or engraver of a picture stands in a different relation to the original artist from that in which the musical performer stands to the composer. The copyist is—well, he is a copyist; and that is all. The engraver is a translator. Both of them enable more persons to enjoy the original in an approximate manner; but copying and engraving are not essential to the art of painting. Whereas, without the musical performer, music would perish with the composer. The art of writing, raised to a higher power in printing, makes it possible to enjoy poetry, even dramatic poetry, without hearing it; but the silent reader must, in imagination

at least, make himself his own reciter as well as his own audience. Poetry, as Mr. Cook points out, is limited by the language in which it is composed; but, on the other hand, by this capacity of perpetual reproduction, it is "a monument more lasting than bronze."

On these grounds, therefore, I think that a natural classification of the Fine Arts must, first of all, distinguish them into two main groups—(1) the Arts of Sight and Space, and (2) the Arts of Sound and Time. The distinction between simultaneity and succession does not seem to me exactly to correspond with these. We cannot always see the whole of a building at once: we do hear a concord of sounds simultaneously.

Along with the three greater arts of Architecture, Sculpture, and Painting, we should, in the first group, include the Decorative arts generally, so far as not identical with the three greater arts. Along with the second group we must take account of the Reproductive arts—singing, playing, acting. The art of dancing—relatively more important in primitive than in civilised society—belongs, as rhythmic movement, to the same group with Music and Poetry; but in so far as dances represent feelings, or ideas, or events to the eyes of the spectators, the dancers are making themselves moving statues or living pictures. Thus, dancing belongs to both groups, and so far as dancing (*e.g.*, in a ballet) is merely reproduced and not invented by the performers, it comes also under the subordinate reproductive arts. The actor's art is likewise addressed to eye as well as ear. But this double aspect of these minor fine arts is no objection to the distinction of the two main groups: the more primitive and least differentiated organisms are more difficult to classify than the later and more highly differentiated forms.

Mr. Cook's remarks about the Opera as the union of all the arts suggest the question whether a union of arts does not necessarily involve some limitations on some or all of them—at least, for beings constituted as we are, which, of course, is what is meant in the question. Whatever may be the case in "an ideal existence," the art of acting does not get a fair chance in the opera as performed on this earth; and the scene-painter is only concerned to provide a background, the performers themselves being the essential part of the picture. Again, is it true that Song is the highest form of music? It was: perhaps it ought to be: but is it? Of course, I am not referring to cases where the words are not heard or not understood; or, if heard, are better not understood, "the things too stupid to speak which we do sing." But is not the highest lyric poetry, as yet, independent of music? and does not the highest music find the tones of the violin more expressive than any human words? The answer to this latter question I had rather leave to a musician.

It seems worth pointing out that, in the one other case besides Opera in which all the arts may be united, the case of a religious service—say, High Mass, with full choir and orchestral accompaniment in a richly decorated church—the *words* are something fixed and taken for granted, and are, artistically considered, of an extremely simple character, though, at the same time, suggestive of emotions and ideas which lie outside the sphere of art. In every art is not the highest form the most differentiated and the most independent of the other arts? Perhaps even in architecture. The first buildings are, at any rate, the least dependent on the added beauty of *imitative* form and colour. Statuary, the highest form of sculpture, attains its end detached from architectural surroundings. Decorative painting is under restraints from which the isolated picture is free. In landscape painting the landscape is no longer a mere background, but exists for its own sake; by ceasing to be the accessory of a figure-subject, it may gain both in imitative accuracy and in emotional expressiveness. This separation of the arts implies, of course, loss as well as gain; and it is therefore well that union should be attempted wherever possible. A poet who had occasionally to write for music would, perhaps, produce better lyrics, even when they were too complex in idea to be fit for singing. Dramas that by no possibility can be acted are a questionable form of art. The divorce of the arts of sculpture and painting from the ordinary crafts (of the potter, the cabinet-maker, the house-painter, &c.) has certainly had a bad effect on the more utilitarian arts, and, perhaps, not an entirely good effect upon the higher.

The disagreement between Mr. Bosanquet and Mr. Cook about didactic poetry seems to be partly a difference in the use of terms, but partly also to come from a deeper disagreement. The question, indeed, concerns the limits of Art rather than the relation of the arts to one another. But if the latter question be made to depend on the relation of the arts to life, and what Mr. Cook well calls "the higher utilities," then the question is relevant. No one would consider *Barbara Celarent*, or *Propria quae maribus*, as coming under any definition of Fine Art. But such works as Virgil's *Georgics* and Pope's *Essay on Man* may surely be accounted poetry and "fine art" (though not of the highest kind), because the didactic purpose is entirely secondary to the beauty and artistic finish of the expression. Mr. Cook is, however, obviously not thinking of didactic poetry in the conventional sense, but rather of the opposite case, where the thought is strong and original, but the expression defective, and where the melody, if there is any, exists for the initiated soul and not for the ear of the ordinary listener. Mr. Cook says, indeed, "If to beautiful expression in poetry be added a high purpose, then the

poem is taken out of the range of our unifying principle." Most certainly not, I should say—and so, I think, would Mr. Bosanquet. But the "high purpose," *without* the "beautiful expression" does not constitute poetry. The poet may not neglect the technique of his art any more than the painter; he must, at the very least, be an "artist in words." But when we say that "words" are the material of the poet, that already means a great deal more than that sound alone is his material. Words express more or less definite ideas and feelings. (By "definite" I do not, of course, mean "definite" in the sense in which scientific terminology must be definite, but only "definite" as distinct from the indefinite suggestiveness of music.) The poet must not only please the ear, but appeal to the imagination. If, over and above that, he can teach, then he is of more value to the world. But would it not be as well to distinguish between the admiration that is given to the poet and the admiration that is given to the subtle psychologist or to the religious teacher who writes harsh verses? Ruggedness or discord is only justifiable if it serves to heighten harmony by contrast. As this is an Aristotelian and not a Browning Society, it may be allowable to hold that poetry, whatever else it may include, must at least include "sweetened speech" (*γένουμένος λόγος*). The poet may deal with the highest subjects, but he must deal with them as a poet. An illustration will enable me to be brief, though I fear it may provoke controversy instead of settling it. *In Memoriam* and *La Saisiaz* both deal with the same philosophical subject; but the former is poetry—as much as is the elegy of David on Jonathan. The latter is well worth studying as a piece of argument, but it is best studied in a prose analysis. The use of verse for didactic or controversial purposes is rather a survival from the days when verse was the sole medium for the literary expression of any serious subject than the highest form of the most spiritual art. The "criticism of life" may become more explicit in the medium of prose without a similar sacrifice of artistic charm. But there is a point at which even the novel—the most characteristic of modern forms of art—ceases to be a work of art and becomes a philosophical or historical treatise or a propagandist pamphlet. Where that point is cannot be precisely laid down, but must be left to the determination of artistic feeling.

THE PHILOSOPHY OF HERBERT OF CHERBURY.

By H. W. BLUNT.

FAME has not dealt kindly with Herbert. Though he had the friendship and approval of Grotius, was admired and controverted by Gassendi, and later gained the honour of a criticism from Locke, he has, as regards philosophy, remained a prophet without honour.

For this there are more reasons than one. Herbert was not in touch with the tendencies of his age towards physical science and its practical applications. He wrote when the political horizon was clouded, and he died before the civil war was over; so that his books were first introduced in times of trouble, and when they reappeared had no longer their author's fostering care. And his personality rather militated against philosophic reputation: he was to the world a gallant and a duellist, a diplomatist and a courtier, anything but a philosopher.

Nevertheless, though he himself tells us that one year is enough for philosophy, "and six months for Logic; for I am confident a man may have quickly more than he needs of these two arts" (Life, ed. 1770, p. 31), it is impossible to doubt his philosophic earnestness. Unlike his great contemporary, Bacon, he is less dilettante than he seems. Amid his amours and his quarrels, whether he is serving in the Low Countries, brawling at home, or, as ambassador at Paris, bearding the court-favourite—when fencing with Montmorency, or writing verses to Ben Jonson, and an epitaph for his guide and friend Donne, he is never turned aside from philosophy.

His poems, while they now give us the very rhythm and spirit of *In Memoriam*, and now, as Mr. Churton Collins has noted, come near to Browning, are all metaphysical, and all in feeling Platonic. His life, while it displays vanities and weaknesses, shows him solemnly asking for a sign from heaven, whether the publication of his *De Veritate* should be for God's glory and the advancement of truth or no:—"if not I will suppress it." And this is the true Herbert—George Herbert's brother. Horace Walpole was not altogether wrong when he summed up Herbert's autobiography in the characteristic dictum, "The History of Don Quixote was the Life of Plato."

Herbert's claims to rank technically as a philosopher rest on two books—*De Veritate*, published 1624, and again, in a larger form, in 1633, and *De Religione Gentilium*, of which a part was published in 1645, and the whole posthumously in 1663.

The *De Veritate* proposes to examine Truth, the scales so to speak by which all else is weighed. It begins by distinguishing (I) the Truth or Reality of Things, by which is meant self-identity, and (II) Our Truth, which is conditional, and is either (a) Truth of Appearance, or the conformity of appearance with things, (b) Truth of Conception, or the conformity of our *facultates prodromæ* with the thing as manifested, and (c) Truth of Intellect, or the conformity of these truths in the return of mind upon itself.

Either Appearance or Conception may be false, though their falsity has a truth of its own. Truth of one may co-exist with falsity of the other. Intellect, on the other hand, is not liable to delusion, but is correct if its premisses are correct, and, if they are not so, can correct them.

Truth for us lies in relation. We have then to consider the object, the faculty, and the conformity of these.

All things are not true or adequate objects; for they are not necessarily within our capacity—*intra nostram Analogiam*, i.e., so related to us as not to transcend our powers. They may be infinite or infinitesimal, and so be neither apparent nor conceivable, *nisi sub ratione finiti*, though the intellect may cognise them, discursively by means of negatives, or *notitiis suis communibus instructus*. Or a thing may lack a *principium individuationis*. Or it may be cognate to no faculty.

Even when the object itself is satisfactory, perceptual truth depends on adequate persistence of the object (*mora debiti temporis*), the purity and propriety of the medium in which it is viewed, and a due perspective; the object must further have *situm commodum*, by which he means, as he explains, a principle of order in the field (*forum*) of inner sense.

For truth of conception there are fresh conditions. The organ must be *integrum*, and tainted with no bad quality. By the latter is meant humours, and nervous disorders, and, in particular, animal spirits; jaundice and preconceptions, manomania and delirium, come under this head. The faculty must be *non vacillans* and *applicata*, i.e., it must be attentive, not intent on any other thing. And the attentive faculty must be the one related to, having affinity with the object, *analogia*.

Lastly comes truth of intellect, which acts only at the suggestion of objects, but which is never otiose nor inert, since objects can never be wanting to the innumerable faculties capable of being roused, *harmonice*, by appropriate objects.

Truths of intellect are *notitiae communes* and truths deduced from these in a consistent system, common notions being such as are found in every sane and whole human being, dictated as it were by

nature, or given from heaven. "So far," he says, "from these being derived from experience, without some, or at least some one of them, we can have no experience."

This classification covers the whole range of simple truths. Complex truth, which deals with universals, involves a further extension in one law only: *qua eodem modo afficiunt facultates nostras eadem erga nos sunt.*

So far as we have gone, one or two interesting points emerge. Herbert is a believer in the relativity of Knowledge. Only those things *intra nostram analogiam* belong to our truth. And yet relativity does not to him mean invalidity; truth of intellect is certainty, and there may be truth both of perception and conception.

His belief in relativity amounts to a dualism more than provisional. The principles of knowledge alone are ours, and these are not constitutive of things. The truth of things which is unconditional differs from the truth of phenomena.

Analogia is the fundamental conception of this portion of Herbert's philosophy. To every object there is its own appropriate *facultas*, the power of knowing it which it excites into activity. It is the *analogia* between the Macrocosm and the Microcosm which makes the one intelligible to the other; we cannot know that which we have not the power to know, and this power springs from the affinity which man has with God. The affinities of things among themselves and to man, and of man again to God, make the world, as given in knowledge, rational.

Herbert's theory of the conformity of the phenomena with the thing beyond our knowing is expressed in his definition of *apparentia* as "an ectype or the vicarious form of a thing conformed under definite conditions to its prototype," i.e., the perceptual order is in definite relation to the things which lie behind it. There is here no hint of the false theory of perception which we find in Bacon and in Locke, that there is in the order of knowledge a mirroring or copying of the reality beyond sense. Herbert's view is rather that the mind unfolds itself in answer to the stimulus of things, and is the interpreter and ordains the fulfilment in the world of mind of that which moves it. This doctrine, if more mystical, is perhaps less equivocal than that more current in English philosophy. It is akin rather to the guaranteed correspondence of some forms of Occasionalism, or, in different senses, to one aspect at least of the Neo-Kantian position, and to that doctrine of Transfigured Realism in which Mr. Spencer makes peace with the metaphysicians.

To return to our analysis of the *De Veritate*. All knowledge is either by (1) Natural Instinct, (2) Internal Sense, (3) External

Sense, or (4) Reasoning Discursive. Natural instinct is the sense which arises from the faculties which deal with the conformity of common notions. In natural instinct we refer to, and, if necessary, explicitly point out a common notion which only those who are ignorant or malicious can or will deny. In discursive reasoning we infer from some such common notion. Such common notions are those which we have about the internal analogy of things especially tending to the preservation of the individual, the species, the race, the universe.

Herbert's instances of *natural commones* are here as elsewhere what Locke calls "practical principles," viz., *ratio propriae conservationis, and operis beatitudinis*. In reference to the former of these, his statement—that from the special conservation of each the common safety of things depends—is a striking proof that he was at once an individualist, and inclined to get beyond the logical results of individualism.

Common notions are so absolutely, or only relatively; the latter when their objects are equivoical or doubtful, or when the *analogia* of faculty and object is so seldom realized that the most important test of universal consensus is inapplicable. An absolutely *a priori* common notion—innate, or, to use a word which Herbert opposes to adventitious or extrinsic, innate, will satisfy this test among others.

He gives six tests of a common notion: (1) priority, (2) independence, (3) universality, (4) certitude, (5) necessity, and (6) what he calls "mode of conformatio[n]." It is prior to all else, dependent on nothing else, and immediate—*Nullus in experientia nonnullus*, which is what he explains himself to mean by "mode of conformatio[n]"—i.e., it is not deduced. It is accepted by general consensus *opus est in deinceps et certe cognitio*, which is all that he means by universality; it is certain or self-evident—*si intelligitur negare negiri*; and it is necessary, an epithet which he explains—*Nullus enim notio est non esse in se, sed in aliis et per se nullus*.

Of these independence, priority, immediacy, and self-evidence do prove innateness in some sense of the word. But how are we to prove these? Herbert would probably answer by the affinity between the Macroeosm and the Microcosm, which makes it absurd to doubt. Have we any better answer as to the ultimate grounding of principles?

He himself lays the stress on "necessity"—what makes for self-preservation. The special or proper object of natural instinct is eternal blessedness, and this a man desires even when hoping and praying for annihilation. And it is here that we find a point of transition to the moral and thereby the religious side of Herbert's

ing.

For the present, however, he proceeds to discuss internal sense, which he does not adequately distinguish from natural instinct, with which, he says, it has one root. His treatment of internal sense is the least satisfactory portion of the treatise; there are subdivisions into mental, corporeal, and other classes of inner sense which, if I understand him aright, involve false principles of division; "humours," apparently, are classed under more than one heading.

In making the "mental" inner sense correspond to the attributes of God and the "bodily" to the world, he gives an intelligible ground for division, such as it is. But the corporeal senses are connected with humours, and reference is made to the carnal man in close juxtaposition with an account of man as a microcosm. Pleasures and pains are concerned here, and we find that it is external sense that really refers to the world of things, and gives the theoretic side of knowledge as opposed to the affectual or moral. All this appears confusion of the worst kind.*

However, under internal sense appears Conscience, which is always in every man and is not, as the theologians will have it, depraved nor corrupt. Conscience is defined as the *sensus communis* of the internal senses, in whose court not only what is good and what bad come up for trial, but also the degrees of goodness and badness, to be weighed and pondered by means of common notions, till, with sovereign authority, judgment can be pronounced as to what ought to be done. The notion of Conscience as, so to speak, a *κοινὴ αἰσθησίς*, relative not to sense proper but to affections, dealing with degrees of good and evil along a scale, and having *auctoritas eximia*, is an interesting anticipation of a good deal in subsequent theory. Herbert, however, turns aside to work out a scheme in which *bonum*, as *maxime affine vero* is distinguished *in re*, *in apparentia*, *in conceptu*, and *in intellectu*, and further development is checked. Good differs from Truth, and moral philosophy from other sciences, except perhaps mathematics, in being more a matter of consensus and of common notions!

The *proper* objects of internal noetic faculties are, it turns out, the attributes of God, all subordinated to the Love of God as a general principle; this suggests Butler and Spinoza—their *common* objects are the objects of the bodily faculties, to which the transition is thus made.

External sense is exceedingly well treated. Some of the remarks

* I prefer to print the passage as originally read, but I am inclined to doubt my comprehension of the section in Herbert. I still think it confused, but, *perhaps*, a clue to its meaning may lie in a passage which the President quoted in reference to this paper. Herbert's Life, page 22.

on the special senses are very acute, if out of date, and the main theory, viz., that there are as many differences of sense as *differentiae* in the objects, which he defends with some verve against those who hold that there are five senses only, is interesting as throwing light on his use of the word *facultas* in its least substantial sense, and also for itself. As well, he says, say one sense as five—*omnes externi sensus ad tactum reduci possunt*; whether there be different channels (*foramina*) or no, there are different senses or faculties. In this connexion he allows—*non negamus equidem*—the statement *nihil esse in intellectu quod non prius fuerit in sensu*, which, in view of his general system, is a hard saying.

Of "discourse" or discursive reasoning there is no necessity to say much, since Herbert says little. The faculties he connects therewith are worthy of remark. *Phantasia*, he tells us, presides in its court,—*phantasia* which, in some relations, is the same with common sense; memory, too, is to be found here. Memory is an act of conforming, on the part of the *facultas memorativa*, with a crass and corporeal object, fleeting and perishing; hence memory fades and dies. *Læsis organis leditur memoria. Morte tolli posse videtur.* The faculty of Reminiscence, on the other hand, with the notions imprinted by soul or mind, abides for ever—a hitting off of the doctrine of *Anamnēsis*, which is more successful than the lines in his Elegy for the Prince—

“Whether the soul of Man be Memory
As Plato thought.”

Discursus, deduction or ratiocination has for its *summa ars Logic*, whose work is to extricate from the shrouding veil of words those common notions against which to dispute were wicked. Logic then, as *Zetetica*, is the making explicit of innate notions and principles. Its method is to raise the simple question in each of ten categories, and a complex question in each compounded category.

Rejecting the Aristotelian categories as defective, because they omit the conceptions of cause and end, because they premise neither an apt and true division of things, nor yet a critique of faculties, and finally because substance and qualities, as commonly understood, are mere figments, he propounds, as a basis of method, ten categories: *an, quid, quale, quantum, ad quid, quomodo, quando, ubi, unde, cuius gratia*, and the combinations of these, *an an, an quid, quid quale, quomodo tale*, and so forth, the abstract titles of which are somewhat uncouth,—*annitas* and *ad quidditas* being scarcely the most repellent.

In each category, simple or compound, he raises its question, and, if the answer be affirmative, further asks: Which, if any, of

the four grounds of knowledge vouches for it? Does this alone, or this best prove it? And—in the case of mediate inference,—on what *notitia* does the *discursus* rest?

And so he establishes his doctrine of common notions, *sive Ecclesia vere Catholica*, his five articles of religion, which he here treats categorically, in the strictest sense of the term. This is the point at which we get our transition to the *De Religione Gentilium*.

It still remains to distinguish Truth from the Probable, the Possible, and the False. The probable is of the past—a *narrantis auctoritate pendet*—it may vary from a very low to a very high degree of value. The possible is of the future. The false is of *never*, and applies neither to things nor to intellect, but to appearance only and conception.

With the probable is connected Revelation, which is a matter not of knowledge, but of faith; which, however, may be *false*, and depends for its weight on certain conditions which are of knowledge. Depending, as it does, on the authority of the revealer, it must be good, and compatible with the ordinary dictates of natural religion. If revelation be present, it must be certain to you *ut aflatum Divini numinis sentias*; and beware of atrabiliousness, superstition, and ignorance of causes. If it be past it must be probable; but it is a matter of belief not of certitude, because not verifiable.

It is worthy of remark that the *De Veritate* contains practically all the positive doctrine of the *De Religione*; that he gets at what he holds to be religious truth from the side of speculation, and does not get at his speculation from the side of religious preconceptions. The *De Veritate* comes first, and it has, apart from its real metaphysical value, the merit of being a philosophic book written with a purely philosophic aim.

The conception of relativity of knowledge and grades of truth, the idea of harmonic correspondence between faculties and objects, the notion of the infinitude as of objects so of faculties, the doctrine of common notions implied in and therefore not derived from experience, *i.e.*, Plato's *Anamnēsis* undergoing transfiguration into a doctrine of categories—all these are valuable pieces of philosophising. If to these we add the conception of method based on the compound predicaments, and some clever points in what we may, for lack of a better term, call psychology—a doctrine of primary and secondary qualities hinted at in the distinction among truths of appearance, viz., that *quod pulcrum in specie* affects us just as *ipsum pulcrum*, while it is different with *species caloris*, or, again, the assertion of the reducibility of external sense to touch, and the remark, *sua tamen veritas apparentiae falsae inest*,—we shall scarcely fail to form a very high opinion of the worth of the treatise.

Herbert probably cannot claim to be very original. He borrowed from the scholastic writers in general; from Patricius probably in particular for the *De Veritate*, and from Patricius and the elder Voss for the *De Religione Gentilium*. But, as it stands, the *De Veritate*, having the enormous advantage of being written when men still knew some logic, and yet belonging, like the author himself, to the age of Hobbes and Descartes, and not after all to that of Paracelsus, is good philosophy.

De Religione Gentilium is a much better known book. Its matter is more familiar to us, though it is merely an application of the doctrine of Truth of Intellect with its common notions to the practical principles of religion.

It is the precursor of English Deism, and is abler than most of the works that succeeded it. It is, however, like the *De Veritate*, half mediæval, if half modern, and with its antique derivations, *ex tetragrammato* or otherwise (of Cerberus as the flesh-eater, of Bacchus from Jahve), and other old-world scholarship, it has been too heavily weighted to survive in any real sense of the word.

Herbert raises the question, How is it possible to reconcile divine providence with the damnation of the Gentiles? and gives a double answer.

(I) The Gentiles are not eternally punished. The chief means for knowing God are universal and were open to them, if to us. These means are the promptings of natural instinct, *i.e.*, the *notitia communis* about religion, and he sums them up in Five Articles:—

(I) There is one Supreme God. *Optimus Maximus*, (II) and he is to be worshipped, (III) Virtue and piety belong to his cult, (IV) Sorrow for sin, therefore, and conversion (*resipiscientia*) are part of man's duty, (V) and there will be rewards and punishments for man here and hereafter. This is natural religion.

The Gentiles, looking around them, saw for the most part only the perishable. But they saw, too, the planets and other celestial bodies, and the vault of heaven, and these they honoured, not as *summum numen*, but servants and messengers thereof, and Phœnician commerce extended star-worship.

Nature-worship was completed by the additional adoration of the elements. And nature-worship, degenerating from its symbolic character, produced imposture. Prophets and priests arose, to whom, in an ecstasy or a dream, a star or an angel had spoken. These priests dictated rites and ceremonies, gaining profit thereby and political credit, so that the Cæsars are augurs, and pontiffs, and gods, and Cicero himself is an augur.

God's infinite attributes lead to his being celebrated under names innumerable, *e.g.*, among the Jews as Elohim, Jahve, Sabaoth, Adonai,

Schaddai. So Priapus and Bacchus and Mithras are all the sun
μυστικῶς.

We find further the deification of heroes, God-men, saints, Joshua, Samson, Hercules, Aristotle, Amadis of Gaul. The Christian Constantine has his apotheosis like any other Cæsar; how was theirs less symbolical than his?

With this expansion, however, of elemental worship to hero-worship, we have the adulteries and thefts and battles of the gods—half-symbolical, in part introduced, he thinks, in disparagement of cults, alien and exotic (*ut alienigenarum vel exoticorum Deorum vitam deridendam propinarent*), in part to prove the power of the gods—this is Hobbes' view, too—but in part also to account for the birth of the divine man, the hero.

And so religion becomes corrupt as its *πιστονοία* is gradually lost, while the priesthood fosters sins, to gain by absolutions and purgations.

From the point of view of philosophy the most important section of the book is Chapter XIII., *De Deo Summo*, where, after saying that philosophers and the vulgar alike have always held that there is one supreme God, he proceeds to discuss the main forms of the philosophic opinion.

It is held (I) that the world and God are co-eternal. This Herbert thinks false, because there would be either no final cause of the world, but only the fortuity of the Epicureans, or a final cause greater than God. He has not conceived of the possibility of a pantheistic view of nature.

(II) That God and the world are *in time* coeval, but God is in dignity and power prior to the world which he evolves—*in plasma digerens*—from chaos. To this Herbert objects that it is to posit cause and effect as simultaneous.

(III) That God first created matter and then formed it. This view he approves, and with this, he points out, agrees the belief of the commonalty in *Optimus Maximus*, though to them the moral attribute comes first.

In explanation of his theory, Herbert proceeds to develop an intricate illustration after the manner of Paley. A man, who finds a complex musical instrument, will, from natural ability alone and apart from tradition or revelation or any external aid, comprehend that it is not fortuitous. He will, as he examines it, and in especial when he hears it played, recognise a mathematical ratio or harmony in the instrument and the music itself; as he might in the notes of a musical score which at first sight appear haphazard. He will even see that the instrument and the musician's skill both belong to one art; that there is one end both to the plan of the mechanician and the skill of the musician—this to exclude polytheism. And the more diverse

the elements in the instrument the more necessary it is to come to one harmoniser at last.

So, if a single element in the universe were removed from its time and place and circumstance, Nature's horror of a vacuum would work instant ruin. There is a greater harmony in the universe than our arithmetical, geometrical, or harmonic proportions. "A higher harmony above the reach of our intelligence, you say? then I will honour sun and moon still!" "Not so. That is to neglect the musician and honour the instrument only. And it is plain to see that there is a *præstantior causa*; else were nature dumb and discordant."

Passing from his view of Nature as the *mechanical* product of God, as *Maximus*, we come to the contemplation of Good as the work of God, as *Optimus*, and definitely raise the problem of the origin of evil.

Touching lightly on ancient Dualism, on Ahriman, and Manichanism, and on the doctrine of Original Sin in Christian theology, Herbert points out that in all alike the good is represented as dominant, *in malis summum gradum non dari*, but even so he cannot recognise a principle of evil. It is contradictory to our conception of God as *Optimus*. He avails himself of the position that there are two forms of evil, *malum culpæ* and *malum pœnae*. The latter takes such shapes as famine, plague, and war, and depends on hidden but assuredly just judgments of God; when it falls on good men it is God's bounteous gift to them of a better life; when on the evil, it is divine punishment. *Malum culpæ* is due to that inborn *arbitrium* which most distinguishes man from the brutes, the gift of freedom whereby alone we can be good, but, therefore, whereby alone we can be evil, or even leave life itself. Both then work in with the conception of God's goodness, and the devil, too, is to be exonerated, for he is only the public torturer and executioner, carrying out the judgments of God. *Haut ita culpandus.*

God as Best and Greatest was worshipped by the Gentiles as their unknown God. This is the germ of truth in their religion, which is otherwise at once defective and corrupt. The priests calling on men to pity the loneliness of God, invented demons. Polytheism was attractive and was profitable. With the increase of rites and ceremonies and symbols the priests were the more necessary.

Oracles which they alone should devise, auguries and visions which they alone should interpret, sacrifices which they alone should formulate, perform, and consume,—these made up the worst side of paganism, in which the most grave crime was Doubt, while Virtue was the last, instead of the first element in worship.

On its better side paganism was theistic. There was cultus

proprius of the highest God only; of his visible emblems only *cultus symbolicus*. And from this theistic belief in Optimus Maximus depends the truth that man should repent and turn to virtue, in confidence of forgiveness or a short chastening from a father, who will be just towards offences committed not in *Dei contumeliam* but *sub boni alicujus apparentis obtentu*. And so we come to Herbert's fifth article, involving a theory of punishment and a doctrine of immortality.

For the former he draws explicitly upon Plato, from the *Phædo*, the *Gorgias*, and the *Republic*, though his statements are inferentially rather than directly from Plato. For instance, there is punishment in the other life, which is not *medicinae causa* but *exempli*, in the case of incurable sin, when there is no struggle nor penitence to condone or remove guilt.

Herbert was apparently rather confused, as a knight of such over-nicety as to his honour might well be, on this subject. He never used Revenge, he tells us in his Life (p. 39) "as leaving it always to God, who the less I punish mine enemies will inflict so much the more punishment on them!" and then follow more adequate reasons for what he quaintly calls "this Forgiveness of others." At any rate, out of the theory of rewards and punishments in after-life appear his views of immortality.

Immortality is a *notitia communis* shown valid by general consensus. And he has further a psychological argument for it in the fact that instinct is *ipsius mentis emanatio proxima*, and therefore precedent to sense-life. But it is only the fact of immortality that we know. The details of our after-life we know only as the embryo forecasts its life in the world. (Life, p. 22, already referred to.)

The five catholic articles are thus shown *ubique* among the Gentiles. Though pagan symbolism—and paganism was symbolism—gave a handle to error and idolatry among the people, yet it involved the universal elements of religion. Are these enough for salvation?

If, says Herbert, you add the oracles of God, the Gentile layman may object that it must be proved that God gives forth oracles; that the priest knows that this oracle was from God and from no spirit or angel, good or bad; that he was not beside himself (*externatus*), nor in delirium, nor half-asleep; that he recorded it faithfully, with seal and signature; and finally, that it is so obviously applicable *ad posteros*, that it necessarily passes into an article of faith.

The *De Religione*, then, is an application of the metaphysic of the *De Veritate* to the articles of religion, which include monotheism and a doctrine of personal immortality, and are, as Herbert holds, *notitiae communes*, universally held. If to the able advocacy of a

rather bold general thesis, we add his acute analysis of the meaning of evil and his elaborate mechanical theory of the world, we have the substance of the book.

It obviously stands or falls with his general metaphysical theory; and the rationalism of it finds an odd commentary in the receiving of the sign from heaven which justified the publication of the *De Veritate*. (Life, p. 172.)

What is the value of that general metaphysic? It is too psychological; depends too much on the individual *sanus et integer*. And this defect prevents him from securing his innate ideas against the difficulties which later Carterianism equally failed to meet. The *notitiae communes* are ideas innate in the individual, though by accident they are alike in average men; and they are actual, and therefore not merely formal constituents of thought. Without the strong points of Descartes, Herbert shares with him the weaknesses of Cartesianism; and yet was very near to emerging on far safer ground.

Herbert is, perhaps, not so great as Bacon, or Hobbes, or Descartes, or, possibly, Gassendi. His aims in his speculation, at least, are too little obvious. A philosopher should know what he means to prove.

How would he test the truth of appearance or conception? By an appeal to common notions. How establish common notions? By a logic or *zetetica*. From what principles does this method itself start? From common notions. Right, if these be postulates for thought in general. If they be an individual's innate ideas, wrong. And are they not these latter?

To have sought, however, in the spirit of truth is a great thing, and this we can assuredly claim for Herbert. A minor philosopher, as he is a minor poet, he nevertheless possesses, as in poetry so in philosophy, the spirit which alone can attain great things, and this to the fullest extent.

BEAUTY.

By REV. P. N. WAGGETT.

AN essay which sets out to ask what Beauty is in itself will not promise much entertainment or discovery to any who have attended to the subject. For those teachers who evidently believe most certainly in the reality of Beauty, who know most about it and love it best, those whom we are most willing to take for guides in the Ethic about beauty, and who have by beautifully speaking added to our stock of it, have refused, more or less steadily, to inquire what beauty is itself. In the chapter called the Lamp of Beauty, in the "Seven Lamps," Ruskin will not ask the question.—"Only asserting that to be beauty which I believe will be granted me to be so without dispute, I would endeavour" (he says) "shortly to trace the manner in which the element of delight is to be best engrafted upon architectural design, what are the purest sources from which it is to be derived, and what the errors to be avoided in its pursuit." And Jacobi (quoted by Martineau) says, "The beautiful has this feature, in common with all that is original, that there is no mark by which we know it. It exists and is self-manifest; you can show it but not prove it—es kann gewiesen, aber nicht bewiesen werden." The masters, the amateurs are right.

My paper then promises little. It will perform even less than it might seem to promise; for it offers no answer; it only attempts, by excluding some methods which are perhaps unfruitful, and by resigning explicitly great fields of interest which lie about the subject, to get the question nearer to being at least asked alone, not overshadowed by those greater questions which it has a singular (I believe singular) power of introducing and connecting. If what I can find to say is thrown to some extent into the form of criticism, this does not spring, I believe, from a peevish ingratitude to those seers of beauty to whom we owe, if not a quite clear question, at least most that we have towards an answer.

Let me add to this disheartening commencement that it may well prove worth while to have put the name of Beauty at the head of to-night's discussion, because we have in it a text upon which every one has a discourse. We live by admiration. In beauty, all of us are specialists. Other qualities of things interest many or few; this one attracts all. The beauty sense lies close to the speculative faculty itself—it is illuminative, thought-carrying—and in many

persons has been the path of least resistance along which theory has begun to run its course.

I have begun by saying that those who practically know most of beauty, decline to deal with it by way of special enquiry. I mean by these, the artists and men of the artistic temper. They take beauty, generally speaking, to be a real thing, an absolute, a concrete ideal. Taste is the genuine apprehension of this real existence; there is a true standard of judgment about it, and it is the one thing with which art should properly concern itself. If its discovery and enjoyment is the work of a faculty of the soul, if it is itself an absolute, a spirit rather than a quality, they are content to leave alone the attempt to analyse either the thing or the enjoyment; they will concern themselves with the rules of art, with the perfecting of taste by practice in its native air, and with the jealous guarding for beauty of the sovereign dignity which belongs to it in nature and in art.

And here they have a sufficient and most fruitful field; here they give us the delicate discrimination of the more and the less worthy sensuous perceptions and perceptibles, and, together with the rightly fastidious choice of expression, they display, to those who are gifted to learn, a path of continually increasing joy in the beauty whose rights they will not argue. They pursue and capture, and, by a divine right of judgment, are sure of the reality of their capture. But the treasure found is not to be dissected or even roughly handled; it is to be delicately framed and thankfully enjoyed. This is the artist's right way. It is in the untrammelled confidence of intuition that he makes his discoveries of delight, reveals unsuspected secrets of charm, and puts them for ever within the reach of moderately clear eyes and thankful hearts; and so from the artists we learn to see it, though they do not speak of it—and we learn our duties and our privileges while they are the stewards of our delights.

We learn more of moral excellence, (do we not?) from the saints than from the casuists.

The artists, painters, poets, music makers, will not stop to tell us what Beauty is—but they will show it to us.

On the other hand, the writers who, for short, may be called the inartistic, rather explain away beauty than take it for granted. It is with them, the good, the useful, as with Hume; Order, as with St. Augustine; Relation, as with Diderot*; or simply confused with all that is pleasant or amiable; or it is analysed more or less crudely as association. The great difficulty about association will

* See Preface to Alison's Essays.

have to be discussed a little later, and I will therefore leave those whom I call the inartistic, unemotional, unpractical writers, with the remark that some of those who, by training and gift, are artists, are by temper of this school, and *vice versa*.

The great German teachers of classical aesthetics take beauty in general for granted. The Abbé Winckelman (whom I know only at second hand), Lessing of course conspicuously, and Goethe, have written on *art*. Goethe exalts art above beauty. Burke is so far of the artist mind that he believes in the reality of beauty and the fixity of taste—only he explains beauty as if it were amiableness, or loveliness, or facility.

Sir Joshua Reynolds is an artist who writes like one of the inartistics. He scoffs at genius if it pretends to be more than skill. Taste is the result of training and knowledge, and beauty is made to comprise all the good qualities, whether of charm, dignity, interest, or rarity, which belong to a work of art.

Alison, antiquated as he now appears, has not yet been surpassed as an exponent of the association theory. He is a master still of profound confusion.*

Mr. Ruskin, while he exposes the fallacies, if they are such, of Alison; while he sets out in "Modern Painters" to tell us what beauty is, too soon, *for that purpose*, deserts the direct enquiry in order to consider the effects of beauty; its connection, in the various elements which may be discovered in it, with functions of the imagination and the conscience. Too soon *for that purpose*, but on the whole it is well that he has done so. He has told us of better things than beauty—he has, really and truly, preached to us of blessedness. Only we must not be misled by the programme of "Modern Painters;" we had better remember that Ruskin is at his best when he takes beauty for granted, and tells us of its sources and its use; that he professedly hates aesthetic, and only trusts the theoretic faculty; and that his works, as a whole, form a body of teaching, not on beauty, but on the Ethic of the Higher Pleasures. Whatsoever things are true and pure, if there be any virtue and any praise, Ruskin helps us to think of these things.

Lastly, there is the contribution of positive science, which I know through Mr. Darwin and Mr. Grant Allen. This seeks to trace the physical *aetiology* of the emotion of beauty, and of beautiful appearances.

* Alison refers the sense of Beauty to a combination of a simple emotion with moral affection or with imagination; but in the discussion of the *combinzation*, the simple emotion evaporates.

I do not disagree with any of these teachers. I sit at the feet of all, and I believe that a diligent listener, which I cannot claim to be, might do something towards co-ordinating their teachings.

With a view to this, I should ask for three preliminary postulates, or, if they are not granted, seek to establish them as propositions. First, Beauty is not the same thing as artistic merit; secondly, beauty does not owe its *native* force to the association of ideas; thirdly, beauty is a rare thing.

And, for myself, I should look most hopefully for material in sights and sounds, without prejudice to any other person's sense of Beauty, as existing in the objects of taste, smell, and touch. I believe that ideas are called beautiful either figuratively or because of their connection with material beauty.

These three things granted or proved, I would proceed to enumerate, and perhaps slenderly exemplify the disciplines which are concerned in the enquiry.

First. Psychological analysis of the emotion of Beauty.

Secondly. Physiological analysis of the physical antecedents of that emotion.

Thirdly. Physical analysis of beautiful appearances of things; and this would pass into the physical speculation concerning the mode of their causation.

Fourthly. A survey of the uses and actions and connections of Beauty and the beauty sense—in imagination and life—including morals and politics.

Lastly. Some will grant that, with any results thus gained as basis, we may take a further step in the region, if there be one, of metaphysic, or teleology, or ideology.

First, it will be granted that an enquiry about beauty must not be, *at its start*, a critique of art. Art is in some sense more than beauty or its expression. It overlaps it on one side. Beauty is an ingredient, though the most important, in a picture or a work of music; it is the jewel, but a jewel in a setting. It is a rather easy mistake to set down all the complex merit of a picture (or the subject of a picture, for this already belongs to art) to the account of beauty in itself. Then, turning to details, we discover all that is to be found in the picture, or as many pictures as we remember; analyse the sum, and seem to be triumphantly analysing what is perhaps the one insoluble element in the mixture.

There is more than beauty even in the first aspect of a work of art. There is intricate line, skilled arrangement, the half intellectual delight of difficulties overcome, and the victory sparingly revealed. There is deftness, humour, local interest, patriotic motive, novelty, variety of form or tone, interesting orchestration, scientific accuracy;

besides all that belongs to association, prejudice and preference, and affection ; things apart, as I hope to show, from beauty in itself. And if beauty is, in the midst of all this, the main prize, the distinguishing gift of an art work, yet the merit of the work, even where it is most intensely insisting upon beauty, is of higher rank than it. For it is not less than a great human expression of, or reaching after, *all* worthiness, whether of beauty, of goodness, or of truth—a work, it is true, of the cunning hand and trained eye, of delicate taste (that is, the refined choice of material and plan and manner of presentment), of high guiding thought. But it is more yet than this—it is a work, a doing, of the heart—the conscience itself. So far as it is truly great and successful, it speaks a message of the whole man, and addresses itself to all that is human in the spectator or listener. It transcribes nature with a secure contented touch ; chooses, arranges, exhibits it ; endues it with intelligence, purpose, passion ; it is guided in its course by the whole past of the artist, his moral standpoint, his best hope, his last and most secret determination concerning life. Over all he has thrown, as an interpretative veil or air, the best mood of his quickened imagination, and it is in the air of the reader's imagination, with all that it has gathered and holds of moral and mental achievement—of joy and penance, and sympathy and regret—that the message is readable, and the purpose stirring, and the passion returned. Shortly, it is a work of imagination, *using* beauty, but having in use other levers as well. Beauty is its choicest material prize, its best and most delicate of keys to the heart, but a key still. We may one day see why it is pre-eminently so—but first we shall have to know what it is in itself that it comes to have this abundant use. The beauty is not the use of it, or this great mode of human life which uses it, nor is the art and all that is tributary to it itself a part of beauty.

[NOTE.—I had instanced here the Ariadne in our Gallery as a picture of great success, and very rich in the quality of beauty. Would its beauty have sufficed to make up for what is perhaps lacking in it, if it was not enhanced by the imaginative interest, the display of motion, conflicting passion, and, as Lamb points out, even succession in time? But the present point will be best illustrated by referring to what Ruskin says about the paintings of Tintoret.]

Secondly, beauty is not due to the association of ideas, unless it be so in the sense of an association which was never, and never can be, conscious, in which sense everything that is may perhaps be described as a relation. If it is an association of ideas, it is not one of *our* ideas, or at least our ideas alone. This point is best established by some of those innumerable instances which are alleged to show the contrary. Alison has made a masterly array of them.

He says Runnymede is not so beautiful as many places, yet we love more to see it, because of what happened there; and the same or the like of the field of Waterloo. This is to say, Waterloo is ugly and Waterloo is interesting; therefore to be interesting is to be beautiful, and interest is beauty; or a man says, "My mother's face is to me the most beautiful in the world," and by the "to me" admits that he knows it is not really the most beautiful, but that he counts it for such. That is to say, affection can dispense with beauty. Therefore, the associationists say, affection is the cause of beauty.

The truth is, that association of any kind—as patriotism, affection, familiarity, eatableness—makes objects agreeable to us or the contrary; so much so as to replace, when it is absent, that *other* source of agreeableness which is called beauty, or, when it is present, to enormously enhance it. My father gives me a watch that keeps good time: I like it because of this quality, and like it greatly because it was my father's. But its paternal character does not make it go true, nor give rise to my judgment of it as a timekeeper. Or, if it does, then I am simply misled by an emotion which should have no place in my notions of punctuality. So if association makes me unconsciously count *that* beautiful which is not beautiful, association here is not the source but the grave of the sense of beauty. It may be answered that this only goes to show how unstable and hopelessly relative is the emotion of beauty; but it will show the same of any other form of judgment or sensation. Ill-health, prejudice, or fright will make us think things hard which are not so, as ordinary judgment relates; but no one supposes that this robs the ordinary judgment of significance, or that when that ordinary judgment is acting the hard things owe their hardness to anything but their natural quality.

In every form of apprehension illusion * must be discounted, and preference, if it intrudes into the judgment. But preference of all kinds—wonder, admiration, pity, love, affection, desire, hatred, envy, pride—has its place in enhancing or counterbalancing, or replacing the power of beauty itself. So things which are sublime, wonderful, scarce, costly, novel, familiar, solid, or bright, are to be distinguished, as they are in ordinary language, from what is properly beautiful.

* It is interesting to note what Alison says about the critical faculty, and its destructive effect on the beauty-sense:—"Young people, inexperienced of imagination, give their approbation to compositions of little (beauty) value." That is their own imagination gives a charm which criticism destroys. If imagination does this, it
be either the proper judge or the creator of beauty.

I must not labour this point. And perhaps most persons, when they speak of association here, do not mean this obvious traceable association with known ideas, but rather a recondite unsuspected association which would never be known but by the beauty which is supposed to be its result: association with high mysterious ideas, ancestral memories, obsolescent or rudimentary desires and affinities of mind. Thus, Mr. Ruskin himself, who pours scorn on the ordinary association explanation, proceeds to derive the beauty of things like the open sky to their suggestion of the infinity and purity of Almighty God.

I remark concerning this more recondite association, and also that which is supposed to have reference to lower utilities and gratifications, that association in the region where we can test it breaks down in the task of explaining beauty. Why must we trust it when it is out of sight? And next, that if beauty has associations, and I indeed think that it has pre-eminently, that is no proof that beauty *is* association. Beauty often gives rise to associations, to ideas: it cannot be at once their cause and their effect.

Everything and every quality of things *in a measure* arouses ideas, that is, is associated with them. Great Britain has alliances, or used to, but no alliance makes it. Butter, if I may choose a subject free from suspicion of peculiarity,—butter has associations. It awakens ideas more or less conscious of mildness, grass, the country, and cows. It is desirable as a substitute for marmalade. But all this does not make it what it is. So every quality awakens ideas in a measure, as softness, hardness, brightness, smoothness, weight. I believe that beauty has an unusual, an unique power of awakening and nourishing ideas—that it is highly associated, but that it is not association.

The soul connects all things in the world with ideas, with motives, and hopes, and moral preferences. But the *qualities* of things are not the hopes we hang on them. Beauty, more than other parts of nature, is thus seized on. More ideas, and more interesting ones, are connected with it; it is made the symbol—the most intelligible symbol—of brighter thoughts than are suggested by other desirable qualities. Wine inspires. But the heightened brain-life is neither the wine nor the taste for it. Beauty also must be separated from its effect, even if it be an inevitable one; from those ends which it may serve, those enrichments which imagination expresses by it, those higher desires and lofty thoughts of which it is the fruitful seed-ground.

Under this head, I suppose, comes the question of the real standard of taste. I must content myself with saying that the variety of the true beauty judgment and emotion, in different races, seems to have

been antecedently much exaggerated. That where savages, roughly speaking, admire what we do not admire, it is where rival preferences have obscured that which is actually connected with the sense of beauty.

Taste is as much fixed as other faculties. It is fixed unless it be judged by rules which would reduce all judgment to the condition of a Pall Mall competition—a game, all against all, of watching the cat jump.*

I will shortly add that beauty is, in ordinary town life, a rather rare thing—not that I mean by that to differ from Mr. Ruskin's dictum that beautiful things are those which are commonest in nature (as a rose is commoner than an orchis—but still rarer than the leaves). I only mean that of the things which we roughly find pleasurable—welcome to our sight or hearing—most are so because of association or knowledge or use, only a few for actual beauty. This is merely a practical remark. Look round this room, comely enough, and see whether on a more careful self-examination you find many points among its inanimate contents which you can fairly accept as beautiful. Those will acknowledge beauty to be rare who count it a separate distinguishable quality; those will hope to find it common who are content to give the name to every quality in things which makes them acceptable to the eye, or ear, or mind.

At length I reach the rather positive part of my paper. It will be the shortest.

Alison says, and all will agree, that we must begin the study of this cause as of others, by studying its effects. The first branch of a regular enquiry into beauty must be the psychological analysis of the emotion of beauty.

Taking that rare peculiar effect which we do in common language attribute to beauty, what does it consist in? What simpler apprehensions compose it? The result of such an enquiry have not as far as I know been modernly published. My own self-examination (and it is the self-examination of ordinary persons which must be the material of the answer) arrives after great pains at something like the old received account of the schoolmen, and, doubtless, Aristotle.

St. Thomas, in a kind of *obiter dictum*, says, “ad pulchritudinem

* Much stress is laid on our failure to admire strange types in nature or art. This is sometimes because strangeness counteracts our proper beauty sense (as familiarity may do, or fear, or any passion) and, sometimes because the exotic in question is very ugly. Many things not only familiar, but of most familiar type, are ugly, and tolerable in spite of ugliness.

tria requiruntur, primo quidem integritas sive perfectio . . . et debita proportio sive consonantia, et iterum claritas" (*Summ. Theol.*, 1^o quæst. xxxix, art. viii. a). Ignorant of this excellent enumeration, I found in my sense of beauty (*i.e.*, I seemed to observe in beautiful things) wholeness, proportion of parts, clearness; or all might be crowded under the head of "integritas"—wholeness, completion; this is present with beauty in proportion to its success. Incomplete or ruined things suggest beauty, as they suggest wholeness. One beautiful spot does not make an animal or picture beautiful, nor any number of such spots arranged, as in tattooing, without reference to the whole. The spots are whole by themselves and beautiful.

Then there is with beauty a concinity, an alliance of several parts—really and truly, as Ruskin points out, a necessity of unity or integrity—and together with this I group the due gradation of colour and rounding of form, and the contrast of several colours, or of tones.

Thirdly, clearness—surely a part of integrity. Clearness, light, transparency of air, due definition of outline, purity of colour, smoothness of note, darkness but never perplexity, softening hazes but not deception, curves of intelligible progress, all that we call fineness.

It may be added that there is a certain nativeness in beautiful things to the sense which perceives them. The sense—mind, not the reflection, expects and recognises them, and has a satisfaction like that with which in reflection we trace a purpose.

These come with beauty—they seem always to accompany it—and to be perfect in the measure of its perfection. But when these and many more shades of the same groups are seized there remains yet something unseizable, which is never apart from these things and yet is beyond them—which has no second name.

When I ask, then, what is Beauty, I mean what is *this*? and the sense of this?

II. The physiological account of the matter is deeply interesting. Here, again, I laboriously sought to maintain what afterwards I learnt had been largely established by the published researches of Mr. Grant Allen, whose exact physiological results are what Burke wanted to find. It will be best to refer to his book on "Physiological Aæsthetics" for enlarged discussion of this part of the subject. He has gathered instances from every kind of æsthetic experience to show that the perception of beauty is a perception in which there is a minimum waste of tissue, or even, it might be added, a repairing effect through the rhythmical light or sound waves. That the perception of ugliness is a disintegrating perception—destroying tissue, wearing out nerve centres, jarring, shaking asunder the perceiving medium, and the

ultimate sensorium which lies behind. This is true also of pain; ugliness is a subtle disintegration.

We can easily understand that a noise composed of sound waves of every variety of length must tear like grapnel shot, while a pure note or harmony of such notes formed of even and evenly-combined waves would heal an organisation which is in itself in a state of rhythm. There will be some loss in the making of the sensation at all, but this will be partly compensated by the rhythmical movement which is received. Mr. Allen shows this in the taste nerves, as well as in eye and ear.

Beautiful sensations, then, are those which are economically made with least resistance, with least waste of life, by organs with life to spare. Hence, "sensus delectatur in rebus debole proportionatis sicut in sibi similibus, nam et sensus ratio quaedam est, et omnis virtus cognoscitiva."—St. Thomas.

III. The physical speculation, so to speak, about the origin of beautiful appearances in things (apart, that is, from the chemistry and mechanics of the matter) has been made, as far as I know, only in the cases of organic forms. Its results are very well known, and were lately thought more nearly certain or uniform than they are at present. They are known to us through Mr. Darwin, Mr. Wallace, and others.

Mr. Darwin attributed the beautiful forms and the brightness, variety, and disposition of colours in animals and plants to natural selection through the special needs of reproduction.

That is to say, he took for granted a certain exuberance of variation in every direction in this matter as elsewhere, having for its proper cause some overplus of energy of life. But the selecting of any particular variation from these, and the accumulation of degrees of variation in one direction for a lengthened period, he thought due to the advantage given by them in the struggle for existence, and their consequent transmission by inheritance. The advantage in these particular cases was one not merely for living, but for reproduction itself. The forms of flowers, often extremely beautiful in their complexity and variety, had for their proper advantage this, that they facilitated cross-fertilisation, and precluded, more or less completely, the self-fertilisation of the blossoms; and cross-fertilisation is a source of increased vigour. Side by side with such an advance towards cross-fertilisable forms which is suggested, there was an advance towards the fertilisation of them by means of insects only, by which, in most cases, the cross-fertilisation is effected. Bright colours, good odours, and conspicuous forms attracted the necessary insects. Flowers most attractive to the eye of insects, flowers which most successfully came to notify their sweet contents,

were most frequently visited by honey-loving insects, had more chances of cross-fertilisation, and became the parents of a larger contingent of the new generation. It must be understood, of course, that it is not supposed that the insects see the colours *as beautiful*, but *as conspicuous*, and as notifying the presence of honey and pollen.

As to the beautiful colours, patterns and forms of animals—these, Mr. Darwin thought, were due to a similar department of natural selection—direct sexual selection, as he called it; that is, a natural selection which came to pass through the preference of the females for such males as were distinguished in colour or form. One of these males became the father of sons and daughters, beautiful also, and the best marked among these sons were similarly the objects of preference to the females of their generation. Hence, beauty.

There are many difficulties in this theory. I pass over that which comes to it as to other parts of Mr. Darwin's great generalisation from the recent speculations of Weissmann.

It seems satisfactory for bold lines of beauty and bright colour. But when the beauty consists, as it does, in the argus pheasant, in spaces coloured and shaded so as to resemble an artist's picture of a beautiful oval object, or the egg and dart of Greek architecture, it is difficult or impossible to suggest the early female judgments which could lead to such a result. Among several primitive birds with, I suppose, speckled or striped primary feathers, what mortal eye could distinguish that which was nearer than the others to such a disposition of tints as that of the argus eye? I do not say, of course, that the bird need have any preference beforehand for that shaded form, only there must be, for this theory, an endless series of female preferences for arrangements even slightly approaching to a beauty which *consists* in its resemblance to a beautiful solid object, a resemblance, and consequently a *beauty*, never showing itself until the last stages.

But Mr. Wallace never believed in sexual selection, and in his book of last year he repeats and reinforces his objections. He says that, as a fact, females choose little; they fall to the victor, and the victor is the strongest. He is the most beautiful because he is the strongest from exuberance of life, and because his tendency to beauty is not checked as it is in the females of most species by the necessity of concealment.

Other marks which are highly beautiful, as bright spots, white tails, and the like, and symmetric marking on the two sides, he says are useful for recognition—a thing necessary for the preservation of species.

Mr. Geddes and others follow on the same side. Roughly speaking, they attribute the beauty to exuberance of life. Where it is absent it has been eliminated in the ordinary selection of nature by

the advantage of concealment. Where such concealment is unnecessary, or where, as in many poisonous small creatures, it is a disadvantage, bright colours and other elements of beauty have room to flourish.

I must leave this interesting subject only hinted at.

The relations of Beauty in art, morals, politics, are the subject of the poets, the Greeks, the German aesthetic writers, Mr. Ruskin, and all the best people in the world.

I hurry on to ask if any ulterior speculation is permissible. I say, "Yes, if we recognise that it is ulterior." I only protest against the ulterior considerations, of the use and connections and significance, being brought into an early stage of the inquiry.

It is interesting to see how all that is to be discovered points the same way.

Psychological analysis shows that clearness, definition, purity, integrity, belong to beauty,—nateness, expectedness, intelligible qualities.

Physiology says that beautiful sights and sounds are those which, so to speak, run easily, do not disintegrate.

Mr. Darwin says they are marks of success; Mr. Wallace that they are this, and also marks of recognition; others that they belong to fulness of vitality, to a certain unconscious frankness of an organism which needs no concealment.

We learn that beauty provokes imagination and is seized on by it. That it is so far the most quasi-ideal of phenomenals that some think it to be ideal in truth. It is a key to the heart, and the very subject of poetry and all art, quickening, illuminating, gracious; an element of delight, and freedom, and repose, and renewed life. It is not association, but it is the most associative of qualities. Its name is claimed for all tender associations, and for many that are grand and stirring. This tendency to be used in association, to be seized on by the mind and heart and conscience, this nativeness to the imagination, seems to give a ground for a guess at its purposes and hidden nature.

It has here not a peculiarity, but a pre-eminence. All things seem to have a significance, but beautiful things almost betray what it is they signify. I do not mean that phenomena shadow forth some world *other* than themselves, but that they *are* our seeing, so far as it goes, of the real world. The real world is not some other one, but the reality of this; and if we say, as a pope does,* that the creatures are the reverberation of God's endless light, we do not mean that God, sitting apart, sends them to us apart, and that they speak of

* Ganganielli, Clement XIV.

things absent, but that they and we are at once in this mind, and that they have their *significance* as they have their *being*, and we our thought of them.

Look round your room. It is hard not to remain in the belief that the little statuette, the portrait, the book-backs, have each a real several quasi-personality in itself. And yet each is a perfectly indifferent lump of clay, or leather, except in so far as a human mind observes it now, and once dealt with it. They are like the wire in a low-tension current—only the poles give them quality. They are missiles from one mind to another—otherwise most certainly, positively, experimentally, they are nothing but a lump of clay, a collection of black marks. But lying between two minds they are real, individual, significant. This is positively true of artificial objects regarded as artificial.

Is it not true of them also as clay and wood? Is it not true of the flowers and the sky? The statuette is such because it lies between two minds, as a wire between poles. All its difference depends on that—cut off the two minds and it is as other clay. Is not the clay *clay* because it lies between two minds. And the flower a flower, and the flashing sea all that it is, and the multitude of living things because they lie between two minds, or all in mind, the mind of the universe, which in the exuberance of creation at last makes possible an answering mind of men. All things are significant of a thought that lies behind, beyond, within. Their being is their significance.

And beauty—this is where the thought comes closest—and all but breaks through. Success is here, and imagination, and recognition, and nativeness, and easy sight. This is where the phenomenal almost is the real, almost conveys what it signifies; if other things show the finger of God, *these* are the veil of His face. This is the direction for seeking, here the secret waits for utterance—our eyes are homeward when they look that way. No wonder the thoughts soar up and the heart seems on the point of some capture. Beauty is the word trembling on the lips of Nature. When it is spoken, what will it be? What is Beauty?

An essay so badly ordered as this one may ask the indulgence of two lines of repetition. What I have said amounts to this little; that we must, in the first place, have a beauty enquiry which shall be apart from art criticism, apart from ethics and the illustration of its uses. That Beauty is not association, and this just because association of ideas can console us for its absence or enhance its presence—not goodness just because there is an ethic about it—a right and a wrong. That we ought to have a psychological and physiological analysis of its separate effect—a physical aetiology of

its origin in things. And these need not prevent us here, unless they do in other kinds of phenomena, from seeking to know the meanings of the world, secrets which come in joy rather than in argument; nor should a high regard for such speculations make anyone despise the physics of the matter. These several disciplines are necessary to each other, but they may work without interference; no one of them need exclude or displace the others in the general field of discussion, or in the mind of a single disciple.

SYMPOSIUM.—IS THE DISTINCTION OF FEELING, COGNITION, AND CONATION VALID AS AN ULTIMATE DISTINCTION OF THE MENTAL FUNCTIONS?

I.—*By G. F. STOUT.*

In discussing this question it is above all things necessary that we should make perfectly clear both to ourselves and others the point of view from which we approach it. I shall consider, in turn, four different senses in which the term "mental function" may be understood. Two of these appear to be based on a false view of the nature of the mind; the third is legitimate, but not adequate for the purposes of psychology; the fourth is what I take to be the specially psychological sense.

1. The first meaning given to the phrase "mental function" is based on a logical analysis of the constituent conditions of consciousness according to which it involves: (a) a subject which is conscious, (b) an object of which it is conscious, and (c) the relation between them which, regarded as a function of the subject, may be called the state or act of being conscious. It is maintained that the ultimate distinction between mental functions is not a distinction between different kinds of objects or between different modes of behaviour on the part of objects. It is rather a distinction between different ways of being conscious—different relations in which the pure ego may stand to one and the same object. The same presentation may, it is contended, be an object both of intellectual apprehension and of desire. The difference is purely a difference in the attitude of the subject.

This view has been most clearly and thoroughly worked out by Brentano. It is easy to find traces of it in many writers who do not definitely formulate it or consistently abide by it. Hamilton

cannot be said to possess a firm and steady grasp either of this or any other clue to the division of the mental functions. But he catches in turn at a surprising number of different clues, and at this one among the rest. According to him, "the peculiarity of feeling is that there is nothing in it but what is subjectively subjective. There is no object different from self—no objectification of any mode of self."

Among recent English writers on Psychology there is only one, so far as I know, who has definitely taken up this position. Dr. Ward recognises three distinct and irreducible facts—attention, feeling, and objects or presentations. Attention and feeling are functions of the subject, and as such stand in a relation of exclusive antithesis to objects and their interactions. This division by no means coincides with that into intellect, feeling, and volition. Attention is regarded as the subjective function common both to intellect and volition. The difference between them is constituted by the difference in the nature of the objects attended to, according as these are motor or sensory.

I am sorry that I cannot enter here into a detailed discussion of the views of Ward and of Brentano. I must, however, content myself with the statement of a few leading objections which seem to me to be fatal to the general position common to both of them. In the first place, I utterly fail to understand how there can be any difference or variation in the subject of consciousness as such, which is not *ipso facto* a difference of variation in the content of consciousness. I do not mean merely that the one must necessarily vary together with the other. I mean that the variation of the one is the variation of the other, just as change in a curve viewed as concave, is at the same time change in the same curve viewed as convex. The distinction between subject and object, as obtained by a logical analysis of the constituent conditions of consciousness, is simply and solely a distinction of two aspects in which one and the same indivisible fact can be regarded. The whole existence of the subject, as such, is constituted by its relation to its object, its entire being consists in being conscious ; similarly, the whole existence of the object, as such, is constituted by its relation to the subject, its entire being consists in being a content of consciousness. There can, therefore, be no modification of the subject which is not *ipso facto* a modification of the object and *vice versa*. The presentation of red differs from that of green; we may express the same fact by saying that the consciousness of red differs from the consciousness of green. Similarly, we may express the difference between the mere intellectual apprehension of an object and the being pleased or displeased with it by saying that the object, considered as a source of pleasure or pain, is a different content of

consciousness from the same object considered as forming part of a whole of discriminated and interrelated elements. But can feeling and conation, attention, be properly considered as being contents of consciousness at all? Dr. Ward says that "we know of them only in their effects not directly in themselves"; this statement, taken by itself, is not equivalent to a denial that feeling and attention can be immediate contents of consciousness. Dr. Ward does not say that we are not directly conscious of them but only that we have no direct cognition of them. In other words they are not presentations in his sense of the word, *i.e.*, they cannot be discriminated and identified as parts within a totality of interconnected elements. This would seem to be all that Dr. Ward can mean. He can hardly intend to deny that we are directly aware of pleasure and pain. But if this is all that he means, it would seem to be less than the logical exigencies of his general position demand. He himself regards his own doctrine as a concrete statement of what philosophers have very widely acknowledged since the days of Kant—the impossibility of the subjective *qua* subjective being presented. Now this impossibility cannot be consistently restricted in its scope so as merely to exclude the presentation of feeling and attention in the specific sense which Ward attaches to the word presentation. It must mean that the subject cannot be in any way conscious of its own states or activities, except indirectly, *i.e.*, by their effects. It would seem then to be a logical consequence of the doctrine advocated by Ward, and by Brentano, that pleasure and pain cannot be in any manner contents of consciousness. I regard this result as a *reductio ad absurdum* of the attempt to distinguish between ways of being conscious on the one hand, and objects of consciousness on the other.

I do not, however, intend to deny that there is a sense in which intellectual apprehension, feeling, and volition can be legitimately regarded as subjective functions. All depends upon the interpretation put upon the word subject. If we mean by it the pure *ego*, then it is illegitimate to distinguish between a variety of purely subjective states or functions which are not identified with various modifications of the content of consciousness. But if we mean the empirical *ego*, as constituted by a concrete multiplicity of co-operating factors, the case is altered. Understanding, feeling, and desire undoubtedly depend on the mode in which the total mental system is affected by and reacts upon the special objects which from moment to moment occupy the focus of consciousness. I cannot help thinking that whatever plausibility may appear to attach to the views which we have been discussing arises from a lurking confusion between the two meanings of the term "subject" (1) as pure *ego* and (2) as empirical *ego*.

2. The second sense in which the phrase "mental function" may be understood is closely allied to the first. It is bound up with the doctrine which attributes agency to consciousness or to the subject of consciousness. From this standpoint the pure *ego*, as distinguished from the empirical *ego*, is regarded as acting on its own objects and as being acted on by them. It is represented as striking in upon the flow of ideas so as to combine, separate, strengthen, repress or otherwise modify the contents of consciousness. On the other hand, the varying content of consciousness is represented as affecting it, so as to produce in it feelings of pleasure and pain. This view of mental process is to be found in the writings of many psychologists of great influence, in some cases explicitly formulated, in others covertly implied. It is, perhaps, most impressively illustrated by the indeterminist theory of free will. I agree with Münsterberg in holding that Wundt's theory of apperception, as applied by him to the solution of special psychological problems involves the assumption that consciousness is in some sort a real agent producing changes in its own objects. Dr. Ward's position is somewhat ambiguous. He restricts the agency of the subject to the one power of variously distributing attention. "All varieties of thinking and acting" are, according to him, to be explained by "the laws pertaining to ideas or presentations." Now, in the wide application which he gives to the term, "attention," it seems difficult to draw a real distinction between laws relating to ideas and laws relating to the distribution of attention among ideas. He would probably maintain that we must draw a line between the distribution of attention as determined by subjective feeling, on the one hand, and as determined by the interaction of presentations or by sensory stimulation, on the other. Thus his doctrine of subjective activity in attention depends on his doctrine of subjective passivity in feeling. Distribution of attention is determined by feeling, and feeling is an effect produced in the transcendental subject by its own objects.

The examination of the theory of subjective agency and passivity need not detain us long. I have already, by implication, stated the reasons which compel me to reject it. The relation of action and passion is one which implies a certain relative independence in the agent and patient. Now the relation of subject and object is one of complete logical interdependence. Each is conceivable only as the necessary correlate of the other. They are, as I said before, merely two aspects in which the same indivisible fact can be regarded. It is impossible, therefore, that they should act on each other. Change in the one cannot produce change in the other, because change in the one already is change in the other. Of course, it is possible to take up an ontological position and to maintain that the subject, which is a

real agent, is not identical with the presentee, which is merely the logical correlate of presentations; in the wide sense of the word, in which presentation is taken to mean any content of consciousness or sub-consciousness. It may be said that it is a soul or monad or mind atom or something of that kind, or even that it is a special part of the brain. In reply I can only urge that hypotheses of this sort are not warranted by the facts. Psychological explanation can be made more definite and consistent without such assumptions than with them. Wundt's doctrine of apperception, with its hypothetic basis in the supposed physiology of the brain, is perhaps the most attractive form of the theory, which, in order to account for the higher mental phenomena, posits a mental agency distinct from the workings of the psychological mechanism.

This doctrine has recently been submitted to a most searching examination by Dr. Hugo Münsterberg. He shows, in a series of masterly experiments, the utter groundlessness of the assumptions on which Wundt and his disciples rely. The result of his work seems of itself sufficient to justify us in rejecting any view of the ultimate processes of mental life, which introduces a special mental agent distinct from the empirical *ego* as constituted by inter-connected presentations, motor dispositions, and feelings.

3. The third point of view to which I would draw attention is that of pure introspection. The question as to the ultimate division of mental functions shapes itself from this standpoint as follows: how many ultimate modes of mental process are distinguishable by analysis of the content of consciousness? This enquiry is a perfectly legitimate one, although as we shall presently seek to show, it does not go far enough for psychological purposes. It is, however, convenient to separate this special problem from the wider issue raised by psychology.

On one of the leading questions connected with our present subject the delivery of introspection is decided and unambiguous. Feeling on the one hand, and intellectual presentation on the other, are for consciousness fundamentally and irreducibly distinct. Presentations in the limited application of the word are capable of synthesis and analysis; they form wholes of discriminated and inter-related elements. They are capable of being reproduced and associated; in other words they may recur again and again in clear consciousness, and they tend to recur in the same combinations. Feelings, on the other hand, are transient concomitants of ever fluctuating conditions. They are incapable of being directly identified and distinguished, or of being constituent parts in a totality of discriminated and interrelated elements. Inasmuch as they cannot be identified as the same at different times, it is meaningless to speak

of them as being reproduced or associated. It will, I think, be found that these statements are strictly and universally true, if we take due care to distinguish between pure feelings of pleasure and pain on the one hand, and the vague modifications of organic and muscular sensation which accompany them on the other.

Let us now consider how far introspection directly warrants us in recognising, under the head, "volition," a third group of mental processes co-ordinate with feeling and intellect. It seems to me that its deliverance on this question is, to say the least, very dubious. It is no doubt possible to draw a broad distinction between motor and sensory presentations. But it can hardly be maintained that this distinction is ultimate in the same way in which that between feeling and sensory presentations is ultimate. Muscular presentations are capable of intellectual elaboration; they can be identified and discriminated, associated and reproduced. They form a most important part of our knowledge, both perceptual and conceptual. Moreover, modern psychological inquiry tends on the whole to show that they have their source in peripheral impressions, just as sensory presentations have. They ought, I think, to be ranked as a special class of sensory presentations. If there be a unique content of consciousness corresponding to a centrifugal discharge from nerve-centre to muscle, it is so embedded in the sensations and ideas which have their source in peripheral impression, from muscles, joints, pacinian bodies, skin and so forth, that it seems impossible clearly to ascertain its separate existence by introspection. The inward volition, which is called attention, presents, on examination, a similar complexity of motor sensations and ideas, having their ultimate source in peripheral stimulation. Perhaps there is, both in the effort to move and in the effort to attend, a specific content of consciousness distinct from the sensory elements. But introspection is, it seems to me, unable to decide the point.

4. We have, finally, to attempt to make a division of the mental functions, which, regarded from a psychological standpoint, shall not be open to the charge either of making baseless assumptions or of being incomplete. The aim of psychology is to explain the growth of experience in time. It does not merely analyse the content of consciousness. It endeavours to ascertain the conditions which determine the variation of the content of consciousness from moment to moment. For psychology, all processes are ultimate which must from the outset be postulated in order to give a systematic account of the development of experience, whether these processes are or are not themselves immediate contents of consciousness. From this standpoint, motor activity must be regarded as an ultimate mental function, even by those who would

deny that it is a unique content of consciousness, or even a content of consciousness at all. On the other hand, the mere fact that feeling is a unique content of consciousness, is not in itself enough to make it psychologically ultimate. It is psychologically ultimate because it plays an altogether special and indispensable part in determining mental change. From this standpoint we may define intellect as the interaction of presentations, conscious and subconscious. Will, when reduced to its lowest terms, is the production of movements in the organism by precedent change in consciousness; it is a psychological process mainly because change in the organism occasions, in its turn, change in consciousness either directly or indirectly. The movement of attention is in all probability a special form of motor activity constituted by muscular tension in the organs of sense, incipient articulation, modifications of breathing, vaso-motor action, and so forth. Feeling, considered psychologically, is a content of consciousness which is generated by the collective inter-action of presentations, and which, in its turn, determines the direction of motor activity.

We have to consider whether, as thus defined, intellect, feeling, and volition, are ultimate mental functions. Is it possible to regard intellect as a special development of feeling or volition? Can volition be properly regarded as a special modification of intellect or feeling? Is it legitimate to treat feeling as an outgrowth of volition or intellect? Each of these questions must, I think, be answered decidedly in the negative.

That motor activity is, for the psychologist, an ultimate mental function, appears from the fact that our only evidence for the existence of mind, except in the case of our own developed consciousness, is derived from movements indicating feeling and intellectual discrimination. The necessity of movement to mental life seems to depend on the part which it plays (1) in securing constant variation in the content of consciousness, (2) in giving that systematic unity to mental process which forms the indispensable condition of the unity of the individual consciousness.

On the first point I shall quote a passage from Ribot. "Without motor elements, perception is impossible. If the eye be kept fixed upon a given object without moving, perception after a while grows dim, and then disappears. Rest the tips of the finger upon a table without pressing, and the contact at the end of a few minutes will be no longer felt. But a motion of the eye or of the finger, be it ever so slight, will arouse perception. Consciousness is only possible through change, change is only possible through movement. Movements are the fundamental condition of cognition, in that they are the instruments of the fundamental law of consciousness—relativity

change." "Movements are the fundamental condition of cognition, in that they are the fundamental law of consciousness—relativity change." This deliverance of Ribot's is somewhat exaggerated, but it is substantially true. Without movement there could not be enough change to sustain consciousness. It must, of course, be borne in mind that under the head "movement" is included the motor processes which constitute the movement of attention.

The part played by motor activity in giving unity to mental action is quite as important as the part it plays in producing change, although, as far as I am aware, no psychologist has explicitly noticed the point. The unity of the individual consciousness seems to depend on the successive salience and dominance of special presentations which constitute in turn the focus of the total mental activity from moment to moment. This is expressed in ordinary language by saying that we can only think of one thing at a time. Now the successive dominance of single presentation, which gives systematic unity to mental process, depends on motor activity. Out of the multitude of impressions which are continually soliciting our senses, this or that special one is singled out by muscular adaptation of the organs of sense, by vaso-motor action, causing increased blood supply to special parts of the sensitive surface, and perhaps by outgoing currents passing along the sensory nerves from centre to periphery. The concentration of attention on ideas seems to be effected by a similar mechanism. Thus the unity of consciousness, and therefore the very existence of consciousness, depends on the focussing of presentations, and the focussing of presentations depends on motor activity. Hence motor activity is a necessary condition of the existence of consciousness. It is therefore, from the standpoint of psychology, an ultimate mental function. But the efficacy of motor activity in this respect depends upon the direction given to it. It must be directed to the intensification of objects which will, in their turn, sustain and heighten the total activity of the empirical self. Stupefaction follows any prolonged and continuous attempt to fix attention on presentations which are incapable of producing a sufficiently powerful wave of excitation in the mental system as a whole. Now, it is just here that feeling plays an indispensable part. We attend only to what interests us. The direction of movement is therefore *ceteris paribus* determined by feeling. But feeling is the concomitant and expression of the total activity of the empirical *ego*; itself a simple content of consciousness, it results from the interaction of a multiplicity of psychological elements. A presentation excites feeling only in so far as it produces a general reaction within the mental system. It is enabled to do so only in virtue of its relation to the mental organisation as this has grown up in the course of

previous experience. Bodily pleasure and pain rise from modifications of those fundamental organic sensations which penetrate and sustain our whole mental life. Viewed in connection with the conditions on which feeling depends the essential significance of the connection between feeling and movement becomes evident. We attend only to what interests us ; this means for the psychologist that only those presentations tend to become salient and dominant, which are capable of sustaining and advancing our general mental activity. Feeling, then, is necessary to the systematic unity of mental process on which the unity of consciousness depends. It must, therefore, be regarded as a fundamental function of mind.

It is perhaps unnecessary to insist on the underived and fundamental nature of intellect. Attempts have been made by Horwicz and others to derive intellect from feeling, but they have, in my opinion, utterly broken down : they are all based on a confusion between feeling and organic sensation. Intellectual presentations could only be derived from a simple and homogeneous content of consciousness, such as feeling is by a process of differentiation and integration. But feeling is incapable of differentiation and integration. If any one wishes to consider the question more at length they will find it exhaustively discussed by Wundt and Horwicz in the "Vierteljahrsschrift für Wissenschaftliche Philosophie" for 1879. It is enough for my purpose to point out that the fundamental character of intellectual process is implied in the account which I have given of feeling and volition. The function of feeling is to control the direction of motor activity ; the function of motor activity is to give relative dominance to this or that presentation as a unifying centre of mental process. The totality of mental processes, in their systematic unity, give rise in their turn to feeling, and so the cycle begins anew. Each of these functions presupposes the others. If any of them is fundamental the others must be so too.

I have not, in the above, explicitly considered Dr. Bain's position. The reason is that I find myself in substantial agreement with him. He would, of course, strongly maintain the existence of special consciousness of innervation distinct from all peripherally initiated sensations and their ideal reproduction. But in other respects I do not think that there is anything of importance in the above exposition of my view which is irreconcilable with Dr. Bain's teaching. If there is, I hope that he will point it out.

II.—*By PROFESSOR J. BROUH.*

I WOULD try to approach the discussion of psychical elements without reference to logical analysis of the idea of presentation, or to merely introspective descriptions of a mental fact. I would seek some distinction which can be expressed in terms connoting physical facts, or what is the same thing, such biographical incidents as are familiar to unmetaphysical memories. Psychology is hardly to be saved from mysticism in many topics unless we can define to one another by finally pointing.

Thus I would not accept the doctrine of Feeling and Will as distinct functions of mind so far as it rests upon so-called evidence of consciousness. Taking Lotze as an exponent: he appeals to the special names given to Volition, and argues that men would scarcely invent them for something having nowhere actual existence. Where these names are applied there is, he says, a peculiar element of approval, permission, or intention, that is absent in the simple intellectual anticipation of the effect about to proceed from us. (*Microcosmus*, vol. i., p. 257.) But mere names prove nothing as to simplicity, and if there is a peculiar element in the mind I should wish to be shown some peculiar and simple feature of external activity in which this element reveals itself.

I have not in view any attempt such as Lewes's to determine the psychological spectrum in correlation with distinctions in nerve changes, a task which seems too hopeless.

But approaching mental life from the outside we may distinguish two abstract features: (1) the bare fact of adaptation to surroundings instead of mechanical transmission of motion; (2) a varying range of adaptation. Or, approaching personal experience in the light of the commonplace conceptions of objectivity and self, we find that, to a great extent, the course of our experience is determined by the incidents and order of the outside world, while, when we inquire further, a more subjective principle takes the place of that order. The range of adaptation and the objective determination of experience are possible to us through the cognitive faculty. It remains to enquire what further psychical element it is which guarantees adaptation as the law of our activity, and determine those mental differences which cannot be traced to objective order or incident.

Mr. Stout has discussed a similar question under his fourth heading. He seeks principles of psychological explanation, though he states the matter for explanation in strictly psychological terms, the variation of the content of consciousness from moment to moment. We may note, however, that this problem cannot be kept exclusively

psychological, inasmuch as every arrangement of the physical world has to do directly or indirectly with the variation. As we listen to a musical progression, or even to the reading of a philosophical paper, the psychology of listening and of interpretative imagination form only a small part of possible explanatory science.

Now, though I recognise the logical force of Mr. Stout's explanations of the variation and unity of consciousness through Feeling and Volition, I should like a clear distinction to be formally made between the position of Feeling as a logical principle, and the position of Will. When we say that the bias of organic activity is given by Feeling we are assigning a psychical cause for the special psychical events that subsequently pass into this activity; while, when we define Attention and Will as the contraction of Organic movements by precedent mental states, we are describing a relation between mind and body. So far as the muscular activity in volition governs subsequent mental reaction it takes its place along with the other arrangements of the external world which impress themselves on our cognitive faculty; and so far as it is the sequel to prior mental states, it calls not for hypothesis as to a mediating cause, but for generalisation of the sequence as a fact, and identification of the usual point of transition. The term Volition raises conveniently a problem for psychological induction to solve, but does not itself contribute a final solution.

Dr. Ward accepts, instead of this volitional element, a law of comitance, viz., that motor ideas pass into organic movement under Attention. But Attention he places as an elemental process alongside of Feeling, vindicating the triple constitution of a psychosis. I do not think it an important question psychologically whether those functions are a content of consciousness, as Mr. Stout insists, or become known only by interpretation of more objective constituents of presentation, as Dr. Ward notices, or both. Whatever be the case, Feeling and Attention are stated as facts indisputable for the psychologist, and our question is,—Are we now in view of distinct elements?

I presume it will be admitted that such phrases as Movement of Attention, and even Focus of Consciousness, are metaphorical. There is no real space, no real focus, and no real movement. What there is, is change of ideas, and change in the intensity, as well as in the quality, of ideas. Even the term Intensity must, to some extent, be taken as metaphorical, for it often indicates merely what is the distribution of qualitative variety among simultaneous ideas. But in so far as intensity is a real predicate of ideas can it be said that its variations constitute a separate function of mind? If Ideation and Feeling alike involve some degree of intensity, does not the intensi-

fication belong to the same function as the production? Intensity, so far as determined physically, belongs to Cognition, and so far as determined subjectively, it implies an additional function of mind, but does not constitute one. Like completed volition, it states a problem of direction or selection to be solved elsewhere.

I finally come into nearest sympathy with Professor Bain. He adopts at the outset, a threefold classification of Mental States, and declares Volition a distinct fact from Feeling (*Senses and Intellect*, p. 2); distinguishes Volition from Feeling as superadding the characteristic of energy put forth (p. 5); describes, in a threefold aspect, the several detailed states (p. 74); remarks the failure of Herbart to ignore the primitive character of Volition (p. 670); and assigns activity as a cause which gives to our sensations the character of compounds, while itself is a simple and elementary property (*Emotions and Will*, p. 303). Yet finally he regards the modes of Consciousness growing up in the course of voluntary action as all either emotional or intellectual (p. 554), and admits as feasible a certain approach to a unity in mind by treating Volition as a complex fact made up of feeling and bodily activity (p. 557). Volition, then, may be a unique fact of consciousness, just as Association might be, but is not a unique element, mode, or function.

Professor Bain's procedure is introspective, and does not in all its results support my argument from the needs of psychological explanation. Thus it leads to the recognition of Indifferent Excitement, which does not share with Pleasure and Pain the explanation of adaptive movement. It is a tribute to the argument from explanation, however, that he finally refers Action under Neutral Excitement to Intellect as its psychological heading (*Mind*, Vol. XIV, p. 105), and reserves the topic Feeling for the hedonic incident which determines Activity.

I would explicitly demand, that our second mental function shall be a principle of explanation for some abstract feature of external behaviour which cannot be explained by Cognition, because in Cognition the subjective tends merely to mirror the objective. I would identify the feature as Adaptation and the element as Feeling. That which is elemental in the doctrine of Volition is the susceptibility of our muscular system to the influence of mental stimuli, and this is not a mental function at all, but a law of mental physiology.

III.—*By PROFESSOR ALEXANDER BAIN, LL.D., Vice-President.*

It will be seen that Mr. Stout proceeds upon the triple division of the mind that is now generally received, and endeavours to fix or define the constituents commonly named Feeling, Will, and Intellect. He adheres to the two names Feeling and Intellect, while in his resolution of Will he substitutes the phrase "motor activity." That the ultimate constituents of mind are three, and no more than three, is the first point for discussion. To deny this is to maintain either that two of the alleged constituents can be resolved into one, or that the three taken together are not exhaustive, and must be supplemented by some fourth mode of mental agency. Whoever may be found to take one or other of these positions, it is clear that Mr. Stout is not of their way of thinking. Again, a logical division, besides being exhaustive of the things divided, must be mutually exclusive the parts must not overlap. If Feeling, Intellect, and Motor Activity be such a division, Feeling must be all feeling and no intellect, and so with Intellect and Motor Activity.

If any one contends that the three divisions named are not exhaustive, such a one is bound to specify the matters omitted. This can scarcely be said to be an actual contention. That the three divisions may be resolved into two, is a supposition more nearly realised among opinions actually held.

Mr. Stout's method of discussing the precise sphere or definition of the three assumed divisions is sufficient to cover all the differences of opinion that emerge among the various standpoints of the present day. Such a discussion inevitably brings into the foreground a number of problems that belong to the general body of psychology, and not simply to the preliminary start or the first laying out of the science. Adhering as he does to the terms, Feeling and Intellect, he gives a deliverance upon the action and reaction of the two, in which he qualifies the Herbartian position so as to get rid of its peculiarly objectionable feature, viz., the seeming denial of a primitive character to our organic pleasures and pains. He also gives to feeling an abstract purity, which puts it in the highest contrast to intellect, but may be found inconvenient in the concrete enumeration of mental states.

The most important part of Mr. Stout's observations seems to me to be the discussion of the Will. He states with great explicitness the different points of view now taken of this department—severally expressed as Will, Attention, Motor Activity. Which of these three names best expresses the known facts is manifestly an open question. Its discussion involves not simply a matter of fact, but also a matter of verbal usage and convenience. After we have admitted, with

Mr. Stout, that motor activity is essential to intellect or thought, that intellect is essential to feeling, while feeling in turn is the source of motor activity, we may still have to preserve the term Will as the medium of intelligible communication to people at large. Indeed, Mr. Stout's explanation is perfectly compatible with the retention of this great leading term, which is more than can be said of Dr. Ward's account of the operation, in terms of Attention.

The two functions of motor activity specified by Mr. Stout as showing its essential position in the scheme of mind, are undoubtedly the statements of important doctrines which must reappear for exemplification and illustration at later stages, where also they will, if need be, receive their due qualifications. It is possible that the first of the two doctrines, while correct in the main, may be too absolutely stated. As to the second, I have no doubt whatsoever, having always held that our limitation of attention to one thing at a time, in so far as that limitation holds, is due to the fact that we have only one set of executive organs, and that these organs cannot be operating in more than one direction at one moment. I therefore thoroughly agree with him as to this particular function of motor activity, although it would not occur to me to introduce it into the definition of mind, or to make it an argument for the fundamental distinctness of volition in the triple classification.

On the whole, I think that the thesis propounded for discussion by the society has been sufficiently vindicated in the affirmative by Mr. Stout in the concluding section of his paper. In his previous sections he raises a number of interesting points of controversial detail, which, in a fitting opportunity, I would willingly comment upon. I think, however, the society will have sufficient occupation for the night in adhering more strictly to his final issue.

Professor Brough's paper does not seem to me to be sufficiently developed to present matter for contentious debate. His idea of adaptation as fundamental in the human system is no doubt correct in itself, and must be provided for in every mode of analysing or partitioning the mind. That the intellect is at the mercy of the objective order is too plain to be questioned, and is a remark that probably ought to be introduced into Mr. Stout's doctrine of the absolute dependence of all successions of ideas upon motor activity alone. Still, as it seems to me, there is nothing in the remark that affects our view of the fundamental and independent character of intellect in the threefold partition as now set forth.

Mr. Stout's discussion of Dr. Ward's laying out of the mind is undoubtedly relevant to the question at issue, but I do not think it could be profitably taken up by the society unless in the presence of

Dr. Ward himself, or of some one capable of handling it in Dr. Ward's sense.

One other point advanced by Mr. Stont I may allude to as one of the standing difficulties of the psychology of Will, i.e., the operation of motor activity in the control of the thoughts. This is a matter for careful investigation rather than for debate, and I should wish to see what various psychological inquirers have to advance upon it. That idealised muscular activity is a real agency adducible in the case, I am prepared to believe; but whether this is the whole case I do not undertake to say.

A P P E N D I X.

**REPORT OF EXECUTIVE COMMITTEE FOR THE
ELEVENTH SESSION.**

On a review of the Session which ends to-day, the Committee have the satisfaction of reporting a continued condition of prosperity, both in point of the numbers and of the efficiency of the Society. We have, indeed, to regret the loss, by death, of two valued members—Miss C. W. Naden, and the Rev. Canon Aubrey L. Moore—brief obituary notices of whom will be found appended to this report. Three other members have been lost to the Society by resignation. On the other hand, nine new members have been elected. So that our numbers now stand at fifty-eight ordinary and four corresponding members, a slight increase on our former number. The average attendance of members at our meetings has been sixteen, a decrease of one from our average of last Session. But the Committee do not attribute this to any decrease in the interest or value of the papers or discussions, which appear to them fully to maintain their former level.

With respect to the programme of work for next Session the Committee would suggest as subjects :—

I. FOR SYMPOSIA.

1. Does our knowledge or perception of the Ego admit of being analysed ?
2. Has Optimism or Pessimism the deeper root in Human Nature ?
3. Heredity as a factor in Knowledge.

II. FOR PAPERS IN PHILOSOPHY AND PSYCHOLOGY.

1. Psychology of the perception of the "third dimension" in space.
2. Relation of Perception to Thought
3. Relation of Thought to Knowledge
4. Relation of the Laws of Association to the Laws of Thought.

These might be treated
together if desired, as
a single topic.

5. Is *Prudential* and *Intuitive* an ultimate and exhaustive division of Ethical Theories?
6. Foundations of the Conception of Value.
7. The Psychological foundations of Poetic and Aesthetic Imagination.
8. The Moral basis of the right of a community to inflict capital punishment.
9. Dr. Hugo Münsterberg's *Die Willenshandlung* and his *Beiträge zur experimentellen Psychologie*.
10. "Lux Mundi" and Dr. J. Martineau's "Seat of Authority in Religion" compared.
11. Renouvier's "Classification Systématique des Doctrines Philosophiques."

III. FOR PAPERS IN THE HISTORY OF PHILOSOPHY—EARLY AND RECENT.

1. Analysis and Criticism of Aristotle's *De Memoria*.
2. The points at issue between "Thomists" and "Scotists."
3. Cudworth's "Intellectual System of the Universe."
4. Salomon Maimon's Writings and Philosophy.
5. Rosmini's Writings and Philosophy.
6. G. T. Fechner's Writings and Philosophy.
7. Guyau's Philosophy, taking account of M. Fouillée's presentation of it.

AUBREY LACKINGTON MOORE was the son of Prebendary Daniel Moore, of Paddington. He was educated at St. Paul's School and St. John's College, Oxford. He afterwards became a tutor at Magdalen and Keble Colleges, a Public Examiner in the University, and Examining Chaplain to the Bishop of Oxford. More recently he was made Honorary Canon of Christ Church, and shortly before his death a Fellow and Dean of Divinity of Magdalen College. He died on January 17th, 1890, at the age of 41. Canon Moore's interest in Philosophy appears at first to have centred in the Schoolmen and particularly in St. Thomas Aquinas. Latterly his main interest was in the points of contact between Philosophy and Science, and

especially in the relation of these subjects to Theology. He had made himself a master not only of the conception of Evolution but also of the biological facts on which it rests. He sought to show that Christianity could accept evolution without making any real sacrifice in its cardinal doctrine. The extent and accuracy of his knowledge of recent advances in biological science may be seen from his essays collected and published under the title of "Science and the Faith." His contribution to "Lux Mundi" has attracted much attention. Canon Moore became a member of our Society in 1885. He contributed two papers, one on "Design in Nature" and the other on "Some Curious Parallels between Greek and Chinese Thought." He was a lucid and forcible speaker, and several times took part in our discussions.

CONSTANCE C. W. NADEN was the daughter of Mr. Thomas Naden, of Birmingham, and was educated at the Mason College, Birmingham, where she distinguished herself particularly in Logic and Philosophy. Miss Naden was elected a member of our Society in 1888, and at once attracted attention by her clear and striking contributions to our discussions. It was her intention to have read a paper during this Session on "Rationalist and Empiricist Ethics," but her fatal illness prevented her from accomplishing it. The notes prepared by Miss Naden for this paper are printed on p. 77 of this journal, as well as others which were found among her papers, on the "Place of Mental Physiology in Philosophy." Miss Naden's lamented death in December last, at the early age of thirty-one, has been the subject of very general regret, and the public press has given a full account of her life and work. The essay on "Induction and Deduction," written while Miss Naden was at Mason College, has recently been published, together with other papers and a biographical notice, by her friend Dr. Lewins. By her death the Society loses one of its most valuable members.

ARISTOTELIAN SOCIETY.

FINANCIAL STATEMENT.—11TH SESSION, 1889 to 1890.

161

Receipts.	£	s.	d.	£	s.	d.
Balance in hand brought forward from 10th Session ..	47	17	9	Rent of rooms, 22, Albemarle Street ..	..	..
Members' Subscriptions	50	8	0	Williams and Norgate—	16	16
				Publication of Proceedings, vol. i., No. 1	28	10
				Less sales ..	..	..
					6	5
				Harrison and Sons—	0	6
				Printing of Proceedings, vol. i., No. 2	..	..
				Printing Cards of Meetings, Circulars, &c., &c.	..	..
				Advertisements ..	..	..
				Type writing—Symposium papers ..	..	..
				Miscellaneous—Postage ; Gratuity to attendant
					4	1
					4	4
				Balance in hands of the Treasurer
					34	11
					7	7
					<hr/>	<hr/>
					£208	5
					9	9

June 13th, 1890.

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LIST OF PAPERS READ BEFORE THE SOCIETY,

DURING THE ELEVENTH SESSION 1889-90.

1889.

Nov. 5.—The President, "What is Logic?" (p. 1.)
 „ 18.—S. Alexander, "Scepticism."
 Dec. 2.—B. Bosanquet, "The *Æsthetic Theory of Ugliness*" (p. 32).
 „ 16.—Symposium : "Is There Evidence of Design in Nature?"
 Rev. Dr. Gildea, S. Alexander, Prof. G. J. Romanes
 (p. 49).

1890.

Jan. 6.—R. E. Mitchenson, "Practical Certainty the Highest Certainty."
 „ 20.*—The President, "Universals in Logic" (p. 82).
 Feb. 3.—D. G. Ritchie, "The Conception of Sovereignty."
 „ 17.—J. S. Mann, "The Distinction between Society and the State" (p. 92).
 Mar. 3.—G. F. Stout, "Association Controversies."
 „ 17.—Symposium : "The Relation of the Fine Arts to One Another," B. Bosanquet, E. W. Cook, D. G. Ritchie
 (p. 98).
 „ 31.—H. W. Blunt, "The Philosophy of Herbert of Cherbury"
 (p. 117).
 April 14.—P. N. Waggett, "Beauty" (p. 129).
 „ 28.—P. Daphne, "Newman's Grammar of Assent."
 May 12.—The President, "The Ego."
 June 2.—Symposium : "Is the Distinction of Feeling, Cognition, and Conation valid as an Ultimate Distinction of the Mental Functions?" G. F. Stout, Prof. J. Brough, Prof. Bain (p. 142).

* Miss Naden's paper on "Rationalist and Empiricist Ethics" (p. 77) was to have been read at this meeting.

RULES OF THE SOCIETY.

NAME.

I.—This Society shall be called “THE ARISTOTELIAN SOCIETY FOR THE SYSTEMATIC STUDY OF PHILOSOPHY,” or, for a short title, “THE ARISTOTELIAN SOCIETY.”

OBJECTS.

II.—The object of this Society shall be the systematic study of Philosophy; 1st, as to its historic development; 2nd, as to its methods and problems.

CONSTITUTION.

III.—This Society shall consist of a President, Vice-Presidents, an Editor, a Secretary (who shall be Treasurer), and Members. The Officers shall constitute an Executive Committee. Every Ex-President shall be a Vice-President.

SUBSCRIPTION.

IV.—The annual subscription shall be one guinea, due at the first meeting in each session.

ADMISSION OF MEMBERS.

V.—Any person desirous of becoming a member of the ARISTOTELIAN SOCIETY shall apply to the Secretary or other officer of the Society, who shall lay the application before the Executive Committee, and the Executive Committee, if they think fit, shall nominate the candidate for membership at an ordinary meeting of the Society. At the next ordinary meeting after such nomination a ballot shall be taken, when two-thirds of the votes cast shall be required for election.

CORRESPONDING MEMBERS.

VI.—Foreigners may be elected as corresponding members of the Society. They shall be nominated by the Executive Committee, and notice having been given at one ordinary meeting, their nomination shall be voted upon at the next meeting, when two-thirds of the votes cast shall be required for their election. Corresponding members shall not be liable to the annual subscription, and shall not vote.

ELECTION OF OFFICERS.

VII.—The President, three Vice-Presidents, Editor, and Secretary, shall be elected by ballot at the last meeting in each session. Should a vacancy occur at any other time, the Society shall ballot at the earliest meeting to fill such vacancy, notice having been given to all the members.

SESSIONS AND MEETINGS.

VIII.—The ordinary meetings of the Society shall be fortnightly, on Monday evenings, unless otherwise ordered by the Society. They shall commence in October or November, and end in June or July of each year. Such a course shall constitute a session. Special Meetings may be ordered by resolution of the Society or shall be called by the President whenever requested in writing by four or more members.

BUSINESS OF SESSIONS.

IX.—Before the close of each year the Society shall arrange a programme for the study of Philosophy in the two departments mentioned in Rule II. for the following session. At the last meeting in each session the Executive Committee shall report and the Secretary shall make a financial statement, and present his accounts audited by two members appointed by the Society at a previous meeting.

BUSINESS OF MEETINGS.

X.—Except at the first meeting in each year, when the President or a Vice-President shall deliver an address, the study of Philosophy in both departments shall be pursued by means of discussion, so that every member may take an active part in the work of the Society.

Each member shall, if possible, contribute a paper or otherwise initiate a discussion at least once in each session.

PROCEEDINGS.

XI.—The Proceedings of the Society in each session shall be published. The Executive Committee shall form the Publishing Committee.

BUSINESS RESOLUTIONS.

XII.—No resolution affecting the general conduct of the Society and not already provided for by Rule XV. shall be put unless notice has been given and the resolution read at the previous meeting.

QUORUM.

XIII.—No proceedings shall take place unless a quorum of five members be present.

VISITORS.

XIV.—Visitors may be introduced to the meetings by members.

AMENDMENTS.

XV.—Notices to amend these rules shall be in writing and must be signed by two members. Amendments must be announced at an ordinary meeting, and notice having been given to all the members, they shall be voted upon at the next ordinary meeting when they shall not be carried unless two-thirds of the votes cast are in their favour.

LIST OF OFFICERS AND MEMBERS.

FOR THE TWELFTH SESSION, 1890-91.

PRESIDENT.

SHADWORTH H. HODGSON, M.A., LL.D.

VICE-PRESIDENTS.

S. ALEXANDER, M.A.

PROF. A. BAIN, LL.D.

BERNARD BOSANQUET, M.A.

EDITOR OF THE "PROCEEDINGS."

PROF. WYNDHAM R. DUNSTAN, M.A.

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PAPERS READ BEFORE THE SOCIETY DURING THE SESSION 1890-91.

PRESIDENTIAL ADDRESS.—THE LAWS OF ASSOCIATION.

*By SHADWORTH H. HODGSON, Hon. LL.D. Edin., Honorary Fellow
of Corpus Christi College, Oxford; President.*

IT is, I think, high time that something should be said from this chair more particularly directed to the subject of the Psychological agency or mechanism which supports, conditions, or underlies Consciousness, and upon which its complexion and texture, considered simply as a process-content of states of consciousness, that is to say, of feelings, ideas, volitions, thoughts, and their changes, proximately depend. In previous Addresses I have devoted myself to different parts or aspects of the subject of Philosophy proper, that is to say, as many of my hearers may remember, to some of the principal relations between consciousness and its objects; these objects consisting either of the real and ordinary world of Persons and Things, or of the necessarily imagined Unseen World which lies beyond the reach of positive knowledge. The process-content of consciousness (if I may repeat myself once more), considered in relation to its Objects is the subject-matter of Philosophy; the same process-content of consciousness, considered in relation to its proximate real conditions, contained in the *Psyche*, that is, in the conscious Being or Subject, is the subject-matter of Psychology.

My Address for the last Session, indeed, was occupied with the subject of Logic; but this is in reality no exception to the general description just given of former Addresses. For the principles and laws of Logic are drawn wholly from within the process-content of consciousness, and Logic itself is nothing more than the method by which consciousness deals with its objects *as known*, that is to say, the knowledge of which, including the knowledge that they exist, is resolvable into some of the elements, be they few or many, of its own process-content. Logic, therefore, equally with the rest of

consciousness, abstracts from, but at the same time, as a fact, depends upon, an agency or mechanism in the Psyche or conscious Subject : and that relation of dependence belongs to the subject-matter of Psychology.

The term *Psyche*, used to designate the real agent in consciousness, is a very convenient, but at the same time a very indefinite one. Originally it seems to have designated the vital powers, the life of organisms, and subsequently the invisible entity which was supposed to be the special seat and immediate source of life therein. By Aristotle it was widely distinguished from the *νοῦς* or Reason, and more especially from the *νοῦς ποιητικός*, *intellectus agens*, or source of Pure Reason. And by St. Paul it was distinguished from the Spirit, *πνεῦμα*, which was the source of insight into Divine truths, and of religious convictions. I think I am right in saying that it was Christian Wolff, that great systematiser of the whole range of philosophy, to whom we owe the term *Psychology* as the name of a special science, of which he became the founder and legislator in his two treatises, *Psychologia Empirica* and *Psychologia Rationalis*. But no one, so far as I know, has ever given a distinct and intelligible idea or conception of what the Psyche itself as a real agent or real entity *is*; nor yet of what any of the real agents or entities *are*, which are separated off from the original conception of it as the source of life; such as Intellect, Imagination, Reason, or Spirit. I am wholly unable myself to frame any such conception. All the definitions attempted of it are what I have called *that which* definitions ; as, that entity which supports life, that entity which supports reason, and so on. For instance, Wolff's definition runs as follows : "That Entity which in us is conscious of itself and of other things external to us is called the Soul. We also speak of it as the human Soul, and also as the Mind or the human Mind." "Ens istud quod in nobis sibi sui et aliarum rerum extra nos conscientiam est *Anima* dicitur. Vocabatur etiam subinde *Anima humana*, item *Mens* vel *Mens humana*." *Psychol. Emp. Pars I, Sectio I. Cap. I, § 20.* The fact seems to be, a fact in which we must needs acquiesce, that while we can frame distinct and intelligible conceptions of the FUNCTIONS attributed to such entities, we can frame none whatever of the immaterial and invisible entities themselves, to which the functions are attributed. And *Psyche*, as the name of an immaterial entity, seems likely long to remain an empty word. Even in the land of Leibniz and of Wolff, the English school of a strictly physiological psychology, as founders or at least forerunners of which Hobbes, Locke, and Hartley* may be named,

* It must, however, be remembered that none of these writers dispense with the original postulate of an Immortal Soul. Their distinctive characteristic is, that

has powerful supporters; chief among whom we may perhaps name the late veteran Gustav Theodor Fechner, and at the present moment Dr. Hugo Münsterberg.

If, therefore, we retain the term *Psychology*, meaning the science of those functions of the living organism, or Subject, the performance of which is immediately accompanied, or may be accompanied, by consciousness, and the term *Psyche* as the name for the Subject so far as those functions are performed—which seems the most practical and reasonable course to adopt at the present day—we shall then be able to conform our use of terms to the usages of popular language, and designate the same real agent by different terms, according to the function of which we are speaking. Thus, the living organism or Subject being called *Psyche*, so far as he performs any function immediately attended by consciousness, may be also called *Self* or *Ego*, when self-consciousness is the function we are speaking of; *Soul*, when imaginative or emotional functions are in question; *Mind*, when the functions in view are predominantly intellectual and logical; and *Spirit*, when they bear a markedly religious character. But we shall be no nearer to a distinct and intelligible conception of any immaterial entity, as the agent concerned in any of these particular functions, than we were in the case of the Psyche itself, which was supposed to underlie the whole of them, as so many faculties of which it was the common bond of union.

The point which I would insist on is this, that the whole enquiry, thus initiated and directed by the conception of a real agent or agency attended by consciousness, is an enquiry into the functions of an agent, and into the course and changes of the process-content of consciousness depending on those functions, as contra-distinguished from the course and changes of the same process-content of consciousness taken in relation to its objects. It is consciousness as itself an existent, though an existent depending on the functions of an agent, which we have to consider in psychology, and which constitutes in fact the subject-matter of psychology as a science; and not consciousness as a knowing of objects generally, which is the subject-matter of philosophy. Consciousness taken as a knowing is the subjective aspect of Existence in the widest sense of the term; consciousness

they approach it by way of its physical conditions, instead of by *a priori* definitions of its properties as an imagined Monad. As to Hobbes, see Professor Croom Robertson's remarks, in his *Hobbes* in Blackwood's *Philosophical Classics*, Chap. VI., pp. 122-124. Locke's position may be most clearly seen from the famous passage in the *Essay on Human Understanding*, Book IV., Chap. 3 (near the beginning) and the defence of it in his first letter to the Bishop of Worcester; and that of Hartley from the two concluding pages of the first part of his *Observations on Man*, Vol. I., pp. 511-512, first edition, 1749.

taken as itself an existent is a real object of a particular kind, among real objects of other kinds. Consciousness as an existent, coming into existence and passing out of existence, interrupted by intervals of unconsciousness, undergoing changes, and entering into combinations and dissolutions of combination among its parts, now simple and now complex, now including sense of effort and purpose, now flowing in a spontaneous and effortless current, and all this in dependence proximately upon some function or combination of functions in the continuing Subject called Psyche,—this it is which we have before us, when we take up the subject of Psychology, or any question, or class of questions, which it deals with as a science, and which thus constitutes one of its departments.

Now the phenomena coming under the description of the Association of Ideas form a department of Psychology in the way just indicated. Without some association of states of consciousness, whether feelings, ideas, or thoughts, there could be no process-content of consciousness at all, no memory, no redintegration. Memory is the name of a phenomenon in which the same state or content of consciousness appears twice over, in two positions of a process which has duration. When I remember anything, say, for instance, when I remember coming into this room half an hour ago, I have in my consciousness *now*, but in representation, the same content which I had half an hour ago, but in presentation; and I identify the two moments past and present in point of, or by means of, their sameness in content, though different in point of their position in the process of experience. The two moments differ in point of time; the two contents differ in point of their context or surroundings in consciousness, and also in point of the vividness and distinctness in detail, with which the same content is present in consciousness. The kind or nature of the content alone is the one thing which is strictly common to both and one in both, in virtue of which we perceive them as the same, though not as one and the same or *unum numero*.

Here, then, in the case of Memory, we have an instance of a function belonging to Psychology. The analysis of the process-content of the consciousness in memory, the outlines of which I have just given, belongs to Philosophy; but its nature as so analysed cannot be explained, unless and until we ask the question of genesis,—How it comes to be what it is? And to ask this question is to bring it into relation with the Subject experiencing it, as *my memory*, and enquire into its connection with myself, and into its relation to other departments of my experience, and more particularly with my powers of presentative perception, by which I first perceived the phenomenon called my actual coming into the room half an hour ago.

We have, then, in Memory a function of the Subject, a function

belonging to the general class of redintegrative or representative functions, as distinguished from the general class of presentative functions resting on the employment of powers of external sense, and sense of the Subject's own muscular movements. Sense-perception is one function of the Subject; redintegration of sense-perceptions is another; and both alike, as functions of the Subject attended by consciousness, belong to the Subject as a conscious being or Psyche, and form distinct departments of Psychology. The functions of the Psyche, though known and named from the process-contents of consciousness which accompany them, are not themselves part of those process-contents; they are parts of the real agency concerned in producing and sustaining them; and unless we can arrive at some knowledge of what they consist of, in their character of real agency or real conditions of consciousness, we have no explanation of the genesis of the Subject's consciousness at all, we have in fact no Psychology.

Two main and comprehensive functions of the Subject have thus been distinguished, one resting on the other, and in turn contributing to its more efficient performance; the first in order of actual experience being the function of sense-presentation, the second that of redintegration or renewal of sense-presentations, by brain processes which are continuations or propagations of processes subserving the reception of sense-presentations. (I use the term *process* in its ordinary not its anatomical sense.) It is better to call the second function redintegration than representation, because representation of sense-presentations is not its only business. It is representative as regards them; but also, while subserving that purpose, it is accompanied by consciousness of another kind, namely, by feelings which we call emotional, such as hope and fear, love and anger, desire and aversion, all of which seem to arise in close connection with the representations of sense-presentations, or, as we commonly express it, are naturally inspired in us by the objects of which sense-presentations are the evidence. Representation, therefore, is only one part of the redintegrative function as a whole. Emotions which arise first in redintegration may themselves be more properly called presentations than representations; but they are presented by or through the brain processes which are the vehicle or mechanism of representing sense-presentations. Sense-presentation and Redintegration are therefore the two main functions of the Subject which we have now distinguished, so far as we have gone hitherto.

But, thirdly, there is another main and comprehensive function which is superadded to these, and is in fact intimately involved with them at all stages of an individual Subject's development, I mean that which in its later stages we know as his re-action upon sense.

presentations and upon redintegrations, when these are first clearly and definitely perceived. This re-action is founded upon reflex nerve actions; or rather the simplest instances of it, preceding the more complex ones, which are re-actions upon more definitely perceived impressions, consist of reflex nerve actions. In these later instances, which we have now in view, the re-actions are volitional, or exercises of conscious will. And these re-actions are of two kinds, or rather contain normally two well-marked stages, one immanent, the other transeunt; by which is meant, that the re-action in the first case is intra-cerebral, or confined to the brain only, mostly by means of inhibition or counter-action exercised by some other part or process in the brain, whereby it is restrained from stimulating an efferent nerve distributed to muscle or other bodily tissue, and so becoming a transeunt re-action, manifesting itself in an overt act, or bodily movement, observable from without. Logical thinking and reasoning are dependent upon processes of immanent volitional re-action upon distinctly perceived impressions.

These three main and comprehensive functions—(1) sense-presentation, (2) spontaneous redintegration with its two branches representation of sense-presentations, and presentation and representation of emotional feelings, and (3) volitional re-active redintegration, with its two stages, immanent and transeunt—are an exhaustive division of the functions of the Subject, considered simply as a conscious agent. The reception of impressions from without through the senses; the elaboration of those impressions in the cerebral mechanism, with the additions made to it by the working of that mechanism, manifested in consciousness by emotional feelings; and the determination of feeling, thought, and conduct, by re-action which takes some definite course, manifested in consciousness by the adoption of one desire to the exclusion of others;—these three modes of neuro-cerebral action, all of which are or may be accompanied by their own modes of consciousness, which serve to discriminate them, include all the actions of the Subject or Psyche, which it is the province of Psychology to study. The second of these three functions, which is intermediate between the two others, namely, spontaneous or non-volitional redintegration with its two branches, representation of sense-presentations, presentation and representation of emotional feelings, is that function to which the Association of Ideas belongs, which is the subject-matter of the present Address, and the Laws of which it is our present purpose to ascertain.

Association of Ideas is thus the name in terms of consciousness for what has just been spoken of as the intra-cerebral elaboration of sense impressions, with the emotional additions made to them by the course of the elaboration. It is a process which mediates between the

reception of sense-impressions or presentations and the volitional re-action which determines the choice of ends or purposes, and the consequent overt and mostly muscular actions, directed to execute the volitions and effect the ends or purposes chosen by them. Sense-presentations may be called its material or pabulum, and it is itself in turn the material or pabulum of volition and voluntary action. Not that there is anywhere a hard and fast line of demarcation between the individual contents, or states of consciousness, which fall under these fixed theoretical divisions. The same content may be at one time a presentation and at another a representation or idea. And a combination, which was originally effected by means of a volition, may harden into a habit, and so become an habitual association, liable to be reproduced spontaneously under laws of association, and so take its place among what we may call the constant furniture and equipment of the mind. This latter process is one main source and efficient element in the growth and formation of moral and intellectual Character.

With this circumstance, however, we are not at present concerned. Our subject this evening is confined within the limits of Association of Ideas, as distinguished, on the one hand, from the reception of sense-presentations, and on the other from volitional re-action, choice, reasoning, and conduct; and therefore lies wholly within the field of spontaneous redintegration. When a combination of ideas is effected voluntarily, or by an act of choice, as, for instance, when we watch for a similarity or an analogy to something already singled out by attention as a subject of enquiry, and then class the two similars or analogues together under a common term or species, that combination is no instance of Association. What is due to Association in it is the suggestion of the second and further instances of similarity or analogy, from the stores of past experience, latent in the cerebral mechanism, until brought forward into actual or conscious remembrance, by the stimulation of that part or process of the mechanism upon which they depend. The stimulation of the mechanism is due to our act of volition; but what ideas the mechanism when stimulated will suggest, depends upon laws of its working which are not laws of volition at all, but laws of non-voluntary suggestion, that is, of Association. We can reject an idea when suggested, if it does not suit our adopted end or purpose, but we cannot call up or ourselves suggest an idea suitable to our purpose by volition, for the simple reason that to do so would require that we should already have the idea before calling it up, which is an absurdity. The Association or Suggestion of Ideas is, therefore, an entirely spontaneous or non-volitional process, a process dependent upon some cerebral mechanism which is a condition precedent to volition or choice.

But at this point I seem to hear an objection, which I may perhaps throw into the shape of a question. Granting, it may be said, that we cannot assume an immaterial entity as the agent or organ of association or suggestion, why should we be compelled to resort to the brain or cerebral processes, as the real agents or organs concerned in the business? Is there not another alternative open to us, namely, to suppose that Consciousness itself acts as its own agent, its own organ; or, in other words, that the distinction between consciousness and an agency which is not consciousness is gratuitous, if not entirely fictitious? In support of this contention it may be urged, that after all what we want to discover are the laws which govern the combination and concatenation of states of consciousness, that is, of their association with or suggestion by one another; that these laws are nothing but general facts of association or suggestion themselves; and may, therefore, be learnt by simple but of course close and careful observation of trains and combinations of ideas or states of consciousness, or even by artificially contrived combinations, instituted with a view to seeing what further combinations they will lead to, without introducing any hypothesis whatever as to the nature or existence of any underlying agent or agency at all. We should thus be disengaged, it may be said, of the troublesome question concerning the nature or the existence of a Psyche, and yet be in possession of a sound and sufficient Psychology. The nature and existence of a Psyche may then, on this view of things, be left to those who may think it worth their while, taking their stand upon the results of Psychology, to proceed to what are purely Metaphysical questions, namely, enquiries into the nature, existence, and powers of abstract, though possibly real, entities, of which the Psyche would be one.

You will observe how diametrically opposite this contention is to that view of the subject which I began by setting before you; more especially in point of the relation between Psychology and Metaphysic, which is the turning-point of the whole. If this contention were tenable there could be no Philosophy distinct from Psychology; and as to Metaphysic, it would become a mere receptacle for otiose and insoluble problems relating to hypothetical and probably fictitious entities. The fact, or supposed fact, appealed to in support of the contention, is, that consciousness is its own agent, or that the agency of consciousness is undistinguishable from consciousness itself, and does not belong to an agent which is not consciousness, but underlies and supports it as its real condition, being different from it. And if this was indeed a real fact, the consequence immediately following or involved in it would be, that Psychology would be co-extensive with Philosophy, being the account at once of the nature and of the genesis

of all knowledge. Consciousness would then become Psychology by devouring, and assimilating into its own tissue, the Psyche, on the separate reality of which it is commonly supposed to depend, and the powers and functions of which are commonly held to be the subject-matter of Psychology, as one of the particular and positive sciences.

What, then, is the truth concerning this alleged fact, that consciousness is its own agency, including it as an undistinguishable element of itself? I am bound to lay before you the fact as it appears to me, and I am bound to do so this evening, because in no other way can I possibly give you an intelligible idea of the process of Association, and of those general facts which come forward in it, and are called Laws of Association. The phenomena of Association cannot be understood in isolation from the other phenomena of consciousness, and to take them in connection with the rest is to take them as forming one department of Psychology among others, and thus necessarily to bring the position and character of Psychology as a science into the discussion.

But now to come to the evidence of the alleged fact, that consciousness includes its own agency, or is consciousness and action in one. Evidence for this fact, however, is just what we never come to, look where we will; evidence there is none. The only circumstance which looks like evidence consists in the fact, that the word *consciousness* is a noun substantive construable as the nominative case of verbs active; as for instance, when we say, Consciousness tells me this or that; Consciousness returns when we awake from dreamless sleep; Consciousness is the condition of thought, and so on. This is good evidence for the nature and formation of language and the grammatical structure of sentences, but none at all for the analysis of the things or actions which language and sentences describe.

When we look at the things or actions described, the evidence goes all the other way. The fact, for instance, that consciousness returns when we awake from dreamless sleep, shows that consciousness was non-existent during the dreamless sleep which preceded its return, and consequently could not have been the agency producing it. Or take the case of a sensation arising, during waking life, in an external sense—a sensation of light for instance. Does the sensation produce itself? By no means. It is produced by a wave of ether impinging on the retina of the eye. Prevent its impinging on the retina, and the sensation is no longer produced. Allow it to impinge again, and the sensation again follows. Reverse the experiment, and prevent the sensation, while allowing the wave to impinge on the retina. You are attempting an impossibility. You cannot act

on the sensation *per se*; you have no hold on it, but through the physical action. The sensation, therefore, depends upon the physical action, and not the physical action upon the sensation. The same holds good of all sense-presentations.

Similarly with representations. When I remember and represent a sensation of light which I have seen, but which I have now ceased to see, does the representation produce itself? If so, it must have operated effectively before it came into existence, which is impossible. Does the sensation operate to produce it? Not so; for the same reason. It has ceased to exist as a sensation. The real condition which proximately produces the representation is the stimulation into activity of a brain process, which is a continuation or propagation of the process originally set up in the brain by the same wave of ether which produced the sensation. The representation depends on this brain activity, and not the brain activity on the representation. Yet we find many psychologists carefully guarding themselves against being supposed to adopt this plain conclusion, and ostentatiously professing that they regard states and processes of consciousness as merely concomitants of the brain processes with which they are immediately connected, and not as their dependent concomitants; or that they look upon both as opposite sides or aspects of one and the same (I presume unnameable, and possibly transcendental) process. What or whom they are afraid of, in this excessive circumspection, which leads them straight into the unintelligible, I have never been able to make out.

Or take again mixed trains of consciousness, mixed, I mean, as consisting of sense-presentations and representations together; as when, for instance, we are engaged in thinking out some problem, and our train of ideas is interrupted by a street procession with music, the noises of which mingle with the imagery of our previously existing thoughts. How, I ask, can the train of previously existing thoughts, taken simply as a process-content of consciousness, account for the arising in it of the sensations of noise and music, which at a given moment take their place in our consciousness? Yet this account they are of necessity called upon to give, if consciousness is its own agency, and no agency which is not consciousness is admissible to account psychologically for its phenomena.*

* That I am not here combating views which exist only in my own imagination may be seen from a paper on the *Psycho-physical Process in Attention*, recently read before the Neurological Society (December 19th, 1889) by one of our ablest psychologists, Mr. Sully, and published in "BRAIN," part 50, in the following summer. See particularly the passage at p. 149 beginning "Lastly, psychology tells us that attention has some at least of its conditions among conscious phenomena;" where

For my own part I must confess, that I should have to renounce the hope of giving any intelligible account of the phenomena of Association at all, much more of their Laws, if I were restricted to an analysis of the process-contents of redintegration, and forbidden to look beyond them to the brain processes upon which they depend. The *how* and *why* of the case would be entirely untouched by any such analysis. Their analysis indeed is an indispensable part of the whole account to be given of them, but it is so only in the character of an accurate statement of *what* the facts are, which have to be accounted for. The explanation of *how* and *why* such and such ideas are combined in Association, and *how* and *why* such and such combinations follow or are followed by such and such other combinations, is not the same thing as the mere statement that they are so combined, or that they do so follow one another. The *how* and the *why* must be sought for elsewhere; and it is evident enough in what kind of phenomena they are, if anywhere, to be found. It is in those neurocerebral processes which physiological experience tells us are the proximate real conditions of states and processes of consciousness generally, irrespective of the particular problem of Association.

The case cannot be more aptly illustrated than by a well-known phenomenon used by Aristotle in another connection—an eclipse of the moon. The visible effects here are the gradual obscuration of the moon's disk by a circular tract of darkness creeping over it, and then leaving its whole surface unobsured as before. These effects correspond to the facts contained in the process-contents of consciousness taken alone; and it is obvious, that no accuracy in describing or analysing them amounts to explaining how or why they occur. This explanation is given only when we know the physical real conditions upon which they depend, namely, the passing of the opaque body, the Earth, between the Sun and the Moon, so as to throw its shadow upon the Moon's disk. This series of physical events corresponds to the brain processes supporting states and processes of consciousness, in the phenomena which we are illustrating. If is only when a desire prevails to puff Psychology out (like the frog in *Aesop*) to the dimensions of an Idealistic

four distinct cases are enumerated. Also a passage in which muscular and mental exertion are said to be varieties of "the active phase of consciousness," p. 155. The use of terms like *mind* and *mental* is everywhere the chief instrument of confusion. They mean now one, now another, of three things, (1) state and processes of consciousness alone, (2) these with their proximate real conditions, and (3) those proximate real conditions alone. The only safe way of dealing with the phenomena which they cover is carefully to keep distinct (1) and (3), and then see what specifically belongs to each, with a view to determine whether they can, or cannot, be identified with each other.

Philosophy, by attributing to it the impossible task of accounting for the existence of Matter, that recourse need be had to the wholly untenable hypothesis, that Consciousness has its agency within itself as an inseparable constituent. Psychology is really a special and positive science, which pre-supposes a knowledge of the existence of Matter, as one of its fundamental data. And here perhaps we may see what those circumspect Psychologists are afraid of, who so carefully guard themselves against making consciousness dependent upon brain processes; they are afraid of being Materialists in *philosophy*; as if Materialism in philosophy were not a totally different thing from Materialism in psychology, in which, since it is a positive science, Materialism is in its proper place, and is not merely innocuous but true, and therefore helpful to philosophic truth.

But it is time now to turn to the question of Association itself and the Laws which govern it. The foregoing disquisition was necessary to show the true position and bearings of the question. From it we see, that the Association of Ideas forms one particular department of Psychology, and that its position is an intermediate one between the department of sense-presentation, on the one side, and that of voluntary reintegration on the other; fed, as it were, with material or pabulum by the first, and itself supplying material or pabulum to the second; and being itself a function which operates under laws determined by the brain processes on which their accompanying process-contents of consciousness depend, which process-contents of consciousness are the evidence by which we primarily distinguish, know, and name, the brain processes which support and govern them. These things being premised, I proceed to the examination of trains of association.

And here perhaps the best way will be to devise some instance which may be fairly regarded as a representative one, and analyse it for the combinations and sequences of reintegration which it contains*. Let us suppose, then, that while walking homewards one afternoon I hear a news-boy shout "Terrible railway collision in Northumberland. Twenty lives lost;" and suppose farther, that in the old coaching days I had myself nearly lost my life by being upset at night in a long journey by mail coach; moreover, that I was not thinking of this at the time when I heard the news-boy's shout, but that it rose into my recollection on hearing it. We have here an instance of reintegration which seems to involve the two chief laws to which its phenomena are usually referred, namely,

* The analysis which follows is taken from a work of the present speaker's, still in MS.

association by similarity, and association by contiguity. Let us consider the real nature of this instance.

In the first place it is to be noted, that the mere hearing of the words shouted is the sense-presentation which sets on foot the whole sequence in redintegration, but is not by itself a redintegration at all. On the other hand, the fact that the meaning of the words, the idea of a fatal railway collision, is connected with the hearing of the words, is a fact of redintegration, and this redintegration seems to depend on contiguity, namely, on the long established connections between those representations of sense-presentations, belonging to different senses, which make up the complex idea of a fatal railway collision, and the sounds which recall them, each of which is connected with a separate image or representation.

Secondly, the recalling of the mail coach accident seems to depend upon the similarity of the two accidents, the railway collision represented first on the hearing of the words, and the upsetting of the mail coach, which it is said to recall into consciousness and redintegrate in memory. But here it may be objected, that, supposing similarity to be the law governing the redintegration of the recalled idea, in that case the idea to be recalled should be that which had the greatest degree of similarity to the idea recalling it, and consequently that some other fatal railway collision, and not an accident to a mail coach, would be the first idea to be redintegrated. Let us then assume, since our instance is only selected hypothetically, that this is the case, and that the idea redintegrated is that of some other terrible railway collision which I have witnessed or read of, and not the idea of a mail coach accident.

The case of redintegration under the two great laws of contiguity and similarity, as they are commonly reckoned, is thus opened up for examination. The question is, Are these the really operative laws of the redintegrative train? We see plainly, that they afford a good description of the phenomena, as they apparently occur, that is to say, are a good common-sense account of it as an *explicandum*, rendering it intelligible by bringing it into line with a vast number of instances which are matter of familiar experience. But the question is, Are contiguity and similarity in the process-content of consciousness really operative circumstances; are they real conditions governing the redintegration, as well as being circumstances which characterise it as an otherwise conditioned phenomenon? This is the first question we have to face.

Now if we adopt the present moment of actually experiencing anything, as our point of view from which to consider the whole panorama of experience, which seems to arise and recede, part by part, into the past, as every moment which is called *present* arises in

succession, and advances into the unknown future, it is evident that no portion of actual experience is ever, strictly speaking, repeated, but retreats into the past of memory, or of oblivion, irrevocably. What we mean by its *repetition* is the occurrence of another moment more or less like it, perhaps even indiscernibly like it, in point of content; in which case we call it identical or the same; the two being distinguished only by the different contexts in which they occur. This can easily take place, since both contexts are brought partially into consciousness together at the moment of repetition, just as the two contents are. Similarity of content, which, if reaching indiscernibility by the absence of any perceivable intrinsic difference, we call identity, or more briefly, sameness of content in difference of context, is thus the real fact designated by the term *repetition*, or *recall*, of an idea in redintegration. An idea recalled is thus really two ideas in point of number, though, if these are indiscernible in intrinsic content, they are taken as one in point of kind.

Let us apply this first to those cases of apparent redintegration by similarity, in which the idea recalling and the idea recalled are separated by an interval of time, as, in the instance supposed, the idea of a railway collision called up by the news-boy's shout, which we will call *A*, and the idea of the railway collision witnessed or read of previously, which we will call *B*. In such cases, it is now evident, that, until *B* has been actually recalled into consciousness, neither its similarity nor its identity with *A* is recalled. When it re-enters consciousness, then, but not till then, its similarity or identity (as the case may be) enters with it. And the same is true of any other relation which may happen to hold between them, as for instance, if *A* is a general or provisional image of a railway accident, and *B* a special or particularised case of one. Until *B* has actually entered consciousness, the fact of its being a particular case of *A* is not perceptible.

Or again, if the relation between them is one of contrast, or of antithesis of any kind, as, e.g., black and white, presence and absence, cause and effect, father and son, and so on, the same reasoning holds good; and would still hold good, if we classed any of these instances under the head of contiguity, instead of similarity. The relation cannot be the link in consciousness, because it does not rise into consciousness unless and until the second member of the relation, the idea recalled, is itself present. The only way in which it could be a connecting link between them would be by the intervention of a volitional act of thought or reasoning; but this would at once, and of itself, take the case out of the number of spontaneous or non-voluntary redintegrations, and consequently out of the phenomena which are subject simply to Laws of Association. It

is clear, then, that no relation in consciousness between the ideas recalling and recalled, such as *A* and *B* stand for—whether of similarity, identity, generality and speciality, contrast, causation, antithesis, or any other—is the real link or nexus between them. For these would not be ideas which intervene between the two occurrences, but ideas which supervene upon the occurrence of the later of the two. And the supervening relation is part of the total phenomenon of the redintegration, but is not an operative condition of its being the redintegration which it is. It is part of the *explicandum*, but not of its *explicatio*.

The phenomenon is, that, a certain railway collision having been once witnessed or read of by me, and then forgotten, a duplicate image of it, *B*, enters into my consciousness, on occasion of a similar image *A* being brought into my consciousness by my hearing a news-boy's shout. We have seen, that no immediately perceivable relation between *A* and *B*, or between *A* and the original of *B*, can be brought in to explain why *B* occurs on the occurrence of *A*. What, then, is the conclusion? Indisputably this; that the really operative condition lies outside the phenomena immediately present in consciousness, that is, in some power or process working below the threshold of consciousness. And we are forced to suppose real conditions which are not states or processes of consciousness, because a state or process of consciousness cannot be conceived to have, as such, any operation, when it has fallen, and so long as it continues, below the threshold, that is, has ceased to be a state or process of consciousness at all. It cannot continue to act, when it has ceased to exist. *Non entis nulla operatio*. There is, then, some agency at work below the threshold. And those of my hearers, who share my inability to form any positive or definite conception of an immaterial agent, will have no hesitation in identifying the agency really operative in these cases with that of the cerebral mechanism. We cannot possibly avoid having recourse to some real condition or conditions acting below the threshold of consciousness. The only question is, whether we are to imagine them as belonging to an immaterial or to a material agent.

Let us, then, see in the next place, whether the hypothesis of cerebral or neuro-cerebral agency is applicable to the case before us. We may conceive its operation somewhat as follows. *B*, the idea of the railway collision once witnessed or read of, may be called, in its latent state before being recalled to consciousness, a *retent*; it is a *retent* at the time of my hearing the news-boy's shout, which gives me the idea of *A*, the fatal railway collision in Northumberland. Now *B*'s original entrance into consciousness was conditioned upon a certain part or parts of the redintegrative organism being set in motion, by

the propagation of sense-impressions into some central part of the brain. These parts acquired thereby a certain readiness or facility for being again set in motion in the same or a similar way, in case of the same or a similar stimulus being imparted to them; that is, they are *retentive* of the original *B*, below the threshold of consciousness. The new stimulus required is given them when *A* occurs, for the occurrence of *A* in consciousness is conditioned upon motions being set up in parts of the organism, which are to a greater or less extent the same as those, whose motions subserved the original *B*. The fact that *A* is similar to *B* shows that it is subserved by similar motions in the same parts of the organism. Hence it is, that the motions subserving *A* set up motions which subserve a duplicate or second edition (so to speak) of *B*. The real link or nexus between *A* and the two *Bs*, and between the two *Bs* themselves, lies in the permanent nerve or brain organism, which retains the tendency to vibrate twice as it has vibrated once, to vibrate thrice as it has vibrated twice, and so on with strengthened tendency for every additional vibration. Unity of organ and similarity of motions in it are thus the real conditions of the redintegration of similar ideas.

Turning in the next place to the remaining part of our supposed instance, that in which the association apparently depends upon contiguity, we shall find that it admits of a similar interpretation. Here we can afford to be much more brief. The connection between the hearing of spoken sounds and the ideas or meaning which they convey to us is allowed on all hands to be matter of convention, instruction, and habit. Its ultimate foundation, which is the ultimate foundation of language itself, lies in the utterance, not in the hearing of sounds. Now the utterance of sound is a reflex action consequent upon stimulus externally or internally received. The sound and the stimulus are therefore connected by contiguity; and the adoption of the sound to express the stimulus, or the object from which the stimulus is received, or to convey a knowledge of it to others, is a volitional action, supervening upon the association between the two. That is to say, there is nothing to be found in the mere content or nature of the sound alone, as a part of consciousness simply, which is the reason for its having that precise meaning which it bears, and no other. The meaning and its name are originally complete disperates. The connection between them as established in our experience is matter of history. We have learnt the meaning, say, of *terrible*, of *railway*, of *collision*, of *Northumberland*, by having had that meaning called up through other channels and then brought into juxtaposition with the sound of the word for it, by being told the sound for each at the same time.

Thus contiguity in the sources of redintegration consists in

simultaneity or close sequence either between presentations, or between presentations and representations. But upon what does this simultaneity or close sequence itself depend, since nothing within the content of its states, as states of consciousness, can be shown capable of accounting for it? There can be but one answer. It depends upon the connection or continuity of the intra-cerebral terminations of nerves coming from the disparate organs upon which the disparate sense-impressions are in the first instance made. And the connection, say, between a sound and its meaning subsequently comes, in time, to be easy and habitual, because the channel of communication between the organs subserving each comes, in time, to be easily and almost instantaneously permeable. That is to say, contiguity in redintegration depends upon features in the structure and functioning of the neuro-cerebral organism, closely resembling those upon which similarity in redintegration depends.

Similarity and contiguity in redintegration are thus dependent concomitants of brain structure and brain processes, and so far as they go are evidence of their nature and mode of operation. These latter are the real conditions governing the course of redintegrative trains of consciousness, at least so far as they consist of ideas or imagery, as in the case just examined. It is in them that we must look for the really operative mechanism, and in similarity and contiguity only so far as they are evidence for what they are and do. Apparent association by similarity is evidence of similarity in brain processes in one and the same part of the brain; and apparent association by contiguity is evidence of an established continuity or permeability of channel between different parts of it. Similarity and continuity in brain processes are the real conditions, or *veræ causeæ*, of similarity and contiguity in the states and processes of consciousness in trains of redintegration.

Depth or strength of impression, of which vividness is one mark, at the time when an idea or image is originally received, will thus be one circumstance favourable to its recall by another stimulus similar to the first. For its depth or strength will render it readier to be stimulated; and the readier the original impression is to be stimulated, the slighter will be the stimulus needed to set it on foot again. This will also hold good, if the depth or strength of impression has been acquired, not from a single powerful stimulus, but by habit arising from frequent repetition.

Again, a great number of connections, which a particular brain process has with processes in other parts of the cerebral organism, is a circumstance which must be favourable to its recall, inasmuch as each additional connection opens up a fresh channel by which a stimulus can be conveyed to it. And here again the facility or

permeability of the connecting channels may be increased by frequency of repetition.

Strength of original impression, number of connections with other impressions, and the increase by habit either of a particular impression or of any of its connections with others, seem thus to be the chief circumstances favourable to the redintegration of any given idea or imagery, under the two main laws of similarity and continuity of brain processes. It is, however, evident, that this carries us but a very little way towards being able to predict the course which, in any given individual, a redintegration, starting from a given idea, will take in actual occurrence; and still more towards formulating a law enabling the prediction of the course of redintegration in a number of individuals, that is, a general law of the course which given ideas will take in spontaneous redintegrations, in the case of mankind at large. Laws of this kind, governing the actual course of particular redintegrations, so far as they are kept free from the interference of volitions, may be fairly called, by analogy, laws of the Dynamic of redintegration, as distinguished from what may be equally well called its Statical laws, among which may be classed those which are evidenced by similarity and contiguity; these latter being laws which apply to all spontaneous redintegrations alike, whatever course they may actually take, and at whatever point in their course they may be considered.

One branch of the enquiry suggested by our supposed instance of redintegration still remains to be followed up. It will be remembered that we rejected the supposition, that the idea recalled by the newsboy's shout was that of a mail coach accident which had nearly proved fatal to the Subject of the redintegration. We rejected it in order to follow up another supposed recollection, in which the similarity between the recalled and the recalling imagery was greater. But it will be admitted that the rejected recollection might quite possibly have been the actual one in the case supposed. Let us, then, go back to this our original supposition, and see whether it throws any additional light on the question of association.

It cannot be said that the recall of the mail coach accident is due to the depth or strength of the original idea or image of the accident, in its character of idea or image: but if we so speak of it, we must admit that this greater depth or strength, which facilitates its recall, is due to the individual interest attaching to it, from the fact that the accident had nearly proved fatal to the Subject of the redintegration. The greater impressiveness of the idea or image of the accident consists in the alarm or other emotional element which it contains, its emotional interest for the Subject individually. Not that the emotional interest is itself the real condition of its readier recall; but

here again the same general law applies, and compels us to regard the emotion as evidence of some peculiar brain process subserving it, and included in the total brain process subserving the redintegration as a whole. And this peculiar brain process, subserving the emotion, will then plainly be the really operative condition determining the recall of the mail coach accident by the idea of the railway collision, in preference to that of another railway collision.

Moreover, it must be noted that this brain process, in subserving emotion, subserves and is the proximate real condition of the Personality of the Subject. For it is those feelings or states of consciousness which spring directly and immediately from the nature of the redintegrative organism, and only indirectly from the workings imparted to it through channels of sense-impression, in which our ultimate and primary knowledge of Self consists. The emotion, say, of alarm in a dangerous accident is a very different thing from the sense-perception of the circumstances constituting the accident. Different persons may feel such emotions in very different ways; some may feel no alarm at all, others may be overcome by it; the sense-perceptions being alike for the consciousness of all. The working of the redintegrative organism adds of itself the emotional accompaniment to the sense-perception, and makes that its special contribution to the total impression constituting the Subject's experience of the event. In ordinary phrase we should say that the image or idea comes *from without*, and the emotion which is combined with it *from within*. There is, therefore, a wide and essential difference between the factor in redintegration evidenced by emotional interest, which I have now pointed out, and the factor or factors evidenced by similarity and contiguity in imagery or ideas.

It is matter of actual experience that emotional interests of every kind, painful as well as pleasurable, and arising from our relations with persons as with things, do apparently determine the course of trains of redintegration, just as similarity and contiguity of imagery or ideas appear to determine it. Twenty-five years ago I endeavoured, though to all appearance unsuccessfully,* to draw attention to this fact, in a book entitled *Time and Space*, and since then I have seen no reason to alter my opinion. The supposed case just considered stands for multitudes of similar ones in real experience. And from these it may, I think, be fairly inferred that there are brain processes specially subserving emotions, closely bound up with those which subserve imagery, and entering with them into many, if not all, the

* This address was delivered before Professor W. James's *Principles of Psychology* had reached this country.

parts of the whole redintegrative organism, and into the connections between them.

If this inference is admitted we shall have added another distinct source or mode of real condition, contributing, with those already recognised, to determine the course of redintegrative trains; but we shall be as far as ever from one desired end, namely, the possibility of formulating what has been called above the *Dynamical law* or laws to which the actual course of re-integrations, starting from any given idea, image, or emotion, will be found to conform. The hope of our ever doing so must lie in the continued investigations of physiological and experimental psychology. At the same time it seems most probable that the cerebral organs and processes which subserve emotions, and those which subserve ideas or imagery, are alike subject to the laws called by analogy *Statical*, which have been pointed out in the case of the latter. I mean, that the redintegration both of imagery and of emotion depends upon (1) depth or strength of the original impressions which are afterwards liable to recall; (2) number and permeability of the connections between different cerebral organs and processes; and (3) increase of what belongs to both the first and second of those heads by frequency of repetition and consequent habituation. The whole ground of redintegration is thus in some sort covered by these laws, since the distinction of its content into imagery and emotion is exhaustive.

The result of our enquiry, then, so far as it has hitherto gone, is this, that we can no longer speak of contiguity and similarity as real Laws of Association. They, together with the third feature which I have pointed out in the dependent process-contents of consciousness in redintegration, I mean, emotional interest, are evidence of the working of the cerebral mechanism, in which the real laws, or general facts, of its working are inherent; which general facts or laws are always operative in it, whatever particular course the redintegrations subject to them may take. For this reason I call these real laws, which as yet have no single acknowledged name appropriated to them, *Statistical laws of the redintegrative trains*. And for these laws we have, in consciousness, some evidence at least, in the shape of the three features named, that is to say, contiguity, similarity, and emotional interest.

But when we come to ask, what we know of the laws which govern the actual course followed by particular trains of spontaneous redintegration, in individuals, at particular times, so as to be able to predict from them, say, for instance, the course of particular reveries or dreams, we are launched on a very different enquiry; and here we find ourselves almost completely at fault. This is what I have ventured to call the *Dynamical part of the whole question*. Here

it would be necessary, not only to know beforehand the general character of the individual who was the Subject of the dream or reverie, but also to know which of the cerebral processes, evidenced by similarity, contiguity, and emotional interest, would prove the strongest, both at the beginning of the redintegration, and at every new turn, or newly represented incident, which occurred in the course of it. Even the description of such cases has hitherto been left to artists in imagination, such as novelists and poets; and it is in this sub-division of psychology that Browning has won his deservedly great fame as a specially psychological poet. Not that he keeps strictly within its theoretical limits. Like all poets he treats man as a whole, or in the concrete; and therefore always depicts the action of his spontaneous redintegrations in inter-connection and alternation with the volitional action of reasoning, adoption of ends, formation and criticism of plans and projects; only that, in so treating his characters, he is careful to let his readers see the play of spontaneous redintegration which supplies the material or pabulum for their volitions and reasonings.

In conclusion I have only to notice, that there are two branches of the subject of Association, which it would be in vain to enter upon this evening. One is the subject of productive Imagination, as distinguished from reproductive; in order to exhibit it as a special case of the latter, so far as both are cases of spontaneous or non-volitional redintegration. The other is that of the spontaneous redintegrations of rudimentary sense-presentations, in order to exhibit them as the foundation or pabulum out of which, by means of the volitional action of attention, our knowledge of the material world of Things and Persons, the latter including our own bodily organism, which is the seat of our consciousness, is originally acquired and constructed. In both these branches it would be necessary to show, that the spontaneous redintegrations employed therein were cases falling under what I have called the Statical Laws of Association, evidenced by the three features of Contiguity, Similarity, and Emotional Interest, which appear in the process-contents of consciousness depending on their action. But these are subjects too large and complex to be profitably treated on the present occasion.

THE CATEGORIES OF SCIENTIFIC METHOD.

By R. B. HALDANE.

THE study of philosophy has entered on a period in its development, which is not yet closed. After Hegel's death there set in a reaction against the abstract point of view from which it was sought to construct a "naturphilosophie." Later on there came, if not reaction against, at least indifference to, those classifications of the sciences—really of an *a priori* character—which Comte and Mr. Spencer inaugurated. If thought is no longer to be treated as of less account than things, no more are things to be treated as of less account than thought. We threw over materialism for subjective idealism. We threw over subjective idealism for an idealism which was objective in so far as it refused to treat the individual mind as the centre of existence. We now-a-days go a step further, and declare that no amount of analysis of the real world into intelligible relations will satisfy us that we can, *a priori*, construct it or even learn its nature. We have not ceased, those of us who have come to this point of view, to be idealists. We only maintain that idealism and realism, mind and experience, are alike, abstractions which cannot be divorced.

But it has not been merely the idealist, commonly so-called, who has sought to construct nature from without. Men of science have forgotten the very lesson which they have preached. They have sought to make the facts fit a mechanical standpoint, as much as the post-Kantians sought to make theirs fit into a "naturphilosophie." This has been, perhaps, more markedly the case in physiology and biology than in any other department. The controversies about vitalism, and the lengths to which the cell theories of Schwann and Schleiden were carried, illustrate the deep hold which the assumption that all that is can be expressed in terms of mechanical categories, had taken of men's minds. If there are no relations in nature but those of mechanism, if position in space and time distinguishes what is real from what is not, vitality must be either a mere form of energy subject to the laws of conservation and degradation or a special force rendering these laws incapable of universal application. This opinion was not merely that of people who had not mastered the critical philosophy and were still at the dogmatic point of view. It was the opinion of disciples of Kant, such as was Schleiden. In the *Critique of Judgment* Kant had deduced from the principles of his system that such categories as those of organisation and beauty were

simply regulative conceptions of merely subjective validity and did not belong to the real. The real for him was what was schematised in space and time through the twelve categories of the Critique of Pure Reason. What was not real in this sense belonged to the region of mere subjectivity. The result was a great impulse towards materialism, which manifested itself in the scientific teaching which came later. There rose in the minds of men of science a metaphysical presupposition that what could not be mechanically expressed was not. Spiritualism, being, from this standpoint, impossible as a clumsy piece of mechanism out of harmony with the rest of nature, got to be regarded with suspicion. In the end men set themselves to seek for a materialistic interpretation of all the phenomena of life.

The disastrous effect of this tendency becomes apparent when we consider what scientific procedure really is. A man does not, now-a-days, say "Hypotheses non fingo." On the contrary the method of induction—as Whewell and Jevons have taught us—is to form an hypothesis and then see whether the facts fit into it. The preliminary conception thus comes to exercise much influence on the facts, or at least in our view of them. Nature only discloses herself to a mind well stored with presuppositions, and the extent to which she discloses herself depends largely on the presuppositions.

The danger of using these presuppositions uncritically shows itself in every direction. Conceive space as discrete only—as made up of a number of smaller spaces, and you make the higher Calculus and the theory of Limits untrue and practically possible only as an approximation. Conceive the relation of cause and effect as the only real relation of sequence, and you are plunged into difficulties about the relation of motive to volition and are drawn into fatalism. Conceive the relation of whole to parts as one which must be apparent in space and time if it is to be admitted as real, and you get a whole which is a mere aggregate of the parts, and can exercise no determining influence upon them. In not one of these instances is the presupposition indicated adequate to the facts or an induction from them. The very essence of the relation of motive to volition is that the antecedent does not pass over into the consequent as does a cause—the sum of the conditions of the effect, into the effect. If I strike a match and merely convert potential into kinetic energy, the latter is but a transformation of its antecedent. But the motives which induce a volition do not pass over into what follows on them in experience in a similar fashion. The psychical process cannot be adequately described by the category of cause. Again there is no apparent justification in the facts for the attempt to ignore the characteristic of a living organism, its power of self-conservation and

of determining its parts and the material which it absorbs. And yet we are constantly told by distinguished men of science that the aim of physiology ought to be to proceed from the mechanical point of view, an assertion which is certainly not the result of observation or experience.

The moral of this is that a criticism of categories or conceptions is essential to a right understanding or investigation of the facts of nature. If we proceed dogmatically—if, for example, we assume that organic nature can and ought to be brought under the categories of mechanism, we are not only proceeding dogmatically upon an assumed metaphysical basis, but we are in danger for the reason already pointed out, of misapprehending the facts. One great lesson which the Hegelian theory of knowledge has taught us is the necessity for such a criticism. We may accept or reject Hegel's general system and his explanation of the relationship of the categories to one another, but we are left with the warning which he gave us against any dogmatic assumption, such as Kant made, of a distinction between regulative and other judgments. He has made us conscious of traps and pitfalls which exist where we least expect them in the investigation of the facts of nature, and he has warned us against a most insidious form of bad metaphysics into which those who are most anxious to keep clear of everything of the sort are constantly stumbling.

I cannot help thinking that the logic of the future must assume a somewhat new shape. One of its chief functions must surely be to determine what categories are appropriate to the different Sciences, and to distinguish these categories. Is, for example, the relation of a stimulus to the muscular movement which follows on it to be regarded as an example of the relation of cause and effect, and if so, upon what grounds? For the burden lies on those who assert the affirmative to shew why. The proposition, too, carries with it important consequences. It assumes that the change which takes place can be explained as a conversion of potential into kinetic energy, that the consequent can be resolved into the sum of its conditions, a proposition which readily leads to further inferences, and induces views of the facts which may prove altogether abstract or misleading. Again, what are the laws which determine the quantity of oxygen which the blood requires, or which the organism uses in sustaining itself? By what justification do we assume that these laws are those of the sphere of mechanism? To assert the contrary would by no means be to assert an exception to the law of the conservation of energy. It would merely be to assert that we are here at a different point of view to which the categories of mechanism are not adequate; in the sphere of what Kant saw to be

different conceptions altogether, irreducible to the ordinary categories; the sphere which he assumes to be unreal, and of regulative validity only. May it not be, to take another example, that such controversies as those about the freedom of the will and the existence of God are mainly due to a dogmatic misapplication of categories. Certainly, the dilemmas which arise regarding them do arise from the application of certain categories, the applicability of which no one before Kant had paused to investigate.

Of course the business of determining the categories appropriate to each department cannot be done *a priori*. It is the attempt to make the determination on an *a priori* basis which has led to much of the discredit into which philosophy has fallen in regard to Science. The work must be done inductively, as the result of full knowledge of the materials which are comprised in each department. The difficulty, as things at present stand, is that knowledge of the nature and extent of the danger of falling into metaphysics is confined to metaphysicians, who are, in their turn, devoid of adequate scientific knowledge. For a mere general acquaintance with Science is not enough for this work. The only men who can do it are those to whom scientific investigation and its methods are concrete realities, the business of their daily lives, and who experience the danger, at every turn, of putting their own reading into what they profess simply to observe. The scientific layman who reads a book on the general aspects of physiology, or even physics, feels this at every turn, and feels himself at the same time powerless to check the results which those who speak from first-hand knowledge tell him they have got. We may be certain, in our own minds, that a mechanical view of cell structures is inadequate to the realities of nature, but we are not in a position to tell those who we think ought to know better where their professions of passive receptivity in observation have failed them. It is, to my mind, unquestionably easier for the man of science usefully to study philosophy than for the philosopher to make anything like an adequate study of science. The theory of a criticism of categories does not rest on any dogmatic basis. It simply asserts doubts and dangers and asks people not to make assumptions which are not and cannot be verified.

I should be sorry to suggest that the work of students of formal logic was at an end. What I do mean is, that there is an immense amount of work to be taken in hand which can only be done by masters of departments of observation and experiment, who have made themselves familiar with the doubts which Kant and Hegel and their modern disciples have cast upon, not the facts, but certain generalisations and influences which are made in a light and airy fashion from the facts. Anyone who will take the trouble to read

such books as Du Bois Reymond's popular lectures, Prof. Tyndall's *Belfast Address*, and Profs. Tait and Balfour Stewart's *Unseen Universe*, or even Mr. Herbert Spencer's *Principles*, will recognise what I mean. What philosophy can do is to display the danger signal, and impress on the devotees of observation and experiment the necessity of a preliminary criticism of these categories. This done, the logic of the various sciences can, it appears to me, be worked out only by the men of science themselves. One has a something more than uneasy sensation about the second-hand science that one finds in even the best text books of the present day.

Why do physiologists throw over Vitalism? Some of the greatest physiologists, men like Johannes Müller, have been Vitalists, and there is evidence in some of the introductory chapters of modern text books on the subject that there are distinguished modern physiologists who adopt the mechanical standpoint, if at all, only with misgivings. But there can be little choice, while there is no choice of categories. Were it once recognised that a man who refuses to treat, as an illusion, the conception of a whole which determines and conserves itself into parts, or of an end which the organism is striving to realise, is not necessarily acting irrationally in seeking to throw overboard generalisations about energy, which are well established in other spheres, but do not necessarily apply to that in which he is working, we should be on safer ground in approaching nature inductively. The same thing is seen of the controversies about the foundations of the higher mathematics, the methods of empirical psychology and a multitude of other topics about which few people are free from presuppositions. It seems to me that an immense mass of work remains to be done in this connection, and that the metaphysician is unfortunately not in a position to do it.

"The teleological judgment," says Kant, in the *Critique of Judgment*, "is at all events problematically applied with justification to the investigation of the facts of nature, but only in order to bring an investigation of these facts within the principles of observation and experiment, by analogy to a causation by ends, and without the delusion that we can thereby explain it. It belongs to the reflective and not to the constitutive judgment. The conception of combinations and forms in nature existing for ends is at all events a principle for bringing phenomena under rules, where the laws of a merely mechanical causality do not suffice." Kant in this passage shows how clearly he realised the inadequacy of the twelve constitute categories to the comprehension of nature. But he relegates those other teleological categories which he sees to be necessary to the region of subjectivity. One of the main services which Fichte, and still more

Hegel, rendered to philosophy was in pointing out the impossibility of ascribing more reality to the one kind of category than the other. We may analyse a landscape as we please into irregular combinations of form and colour, but it will continue to involve as an important part of its significance, those categories of the beautiful through which alone a sunset, for example, is important. We may trace life down to its lowest forms, but so long as we are dealing with life and organisation we are dealing with what is intelligible through concepts which do not belong to the sphere of mechanism, and there is no justification in an observation of the facts for the confusion of one with the other. Hegel gave us a theory of the categories, much of which may well remain long after his absolute system has ceased to be read. We may decline to accept his deduction in the systematic form into which he throws their relations. But he has done permanent work of a kind which cannot be questioned, in his examination of the differences which distinguish these categories from one another. We may refuse to use any more the result we thus obtain for the construction of an *a priori* "naturphilosophie." But this should not blind us to the fact that we do in the various sciences regard nature from abstract points of view which employ one of certain fundamental conceptions, and which do not profess to exhaust the whole. It was wrong to do as Kant did in arbitrarily taking certain of these conceptions and regarding the standpoint to which they belonged as the only one which was truly concerned with reality. But Kant saw the necessity of a wider view of things, and allowed subjective validity to the rest of the ideas which we find in nature. For him these ideas were even necessary to the modern man of science who preaches the mechanical method of regarding nature as the only true one, these other conceptions have not even subjective validity. Truly it is time that philosophy took in hand the business of correcting this new dogmatism. Some of the younger biologists are already becoming alive to the mischievous effect it has on the possibility of faithful observation of nature. From them a logic of science which should contain a criticism of its categories and at least reveal the danger of uncritical procedure would surely meet with a response.

SYMPOSIUM.—DOES OUR KNOWLEDGE OR PERCEPTION
OF THE EGO ADMIT OF BEING ANALYSED?

I.—*By A. BOUTWOOD.*

AT the very threshold of this enquiry we are confronted by the question what meaning can we attach to the phrase "the analysis of knowledge or perception?" It may, I think, possess any one of the following meanings, viz.:—the ascertaining (1) of the conditions under which the act of knowledge or perception takes place, or (2) of the factors which are concerned in it, or once more, it may relate to the derivation of some particular "knowledge" or "perception." I do not say an *act* of knowledge or perception, for the derivation of an act is to me an unthinkable process, but of some particular "knowledge" or "perception" from some antecedent "knowledge" or "perception" which did not have the object of that which is said to be derived from it as *its* object.

Let us take these three meanings *seriatim*. We may, I think, combine the first and second, and say in answer to both that the Ego is made known to us as one of the two terms which are related in every act of knowledge or perception. Whether an act of knowledge or perception relates to the men and things around me or to my own experience, it is the Ego which stands as the subject of the act. It is *I* that know or perceive in every such act, whatever the object of the act may be. It will be observed that I speak of the *act* of knowledge and the *act* of perception. These expressions may, perhaps, be open to more or less criticism, I will, therefore, say that I do not now attach any particular importance to the word *act*, but that I use it simply because it seems the most convenient expression available.

In turning to the last of the three meanings which I have suggested may attach to the phrase "analysis of knowledge or experience," I am conscious of some slight difficulty. I have said that the phrase may relate to the derivation of some particular "knowledge" or "perception" from some antecedent "knowledge" or "perception" which did not have the object of that which is said to be derived from it as *its* object. Is, however, this an operation that can really be performed, or is it not rather one which, from the nature of the case, is impossible? I must confess that I lean to the latter of these alternatives, and own that I cannot attach any real meaning to the words I have just used. I cannot conceive how any knowledge can be derivative. We may be able to pass behind our

opinions and beliefs, and show that on which they depend. In a certain real sense, also, ideas and feelings may be spoken of as secondary, and by aid of the theory of association we may be able to provide them with a more or less probable ancestry, but when we reach knowledge it seems to me that we arrive at that which is, for us, "ultimate"—"I know that A exists" is, I presume, the last, as it may be the only word to be said in reply to the question: "Why do you affirm that A exists?" and we cannot get behind that act of knowing and show that it has arisen from some other act of knowing, or, if you prefer it, state of knowing, which did not possess A as its object. An act of knowledge implies, I presume, that two realities—the knower and the known—come into a certain relation one to the other. Until that relation be established, the object A must remain unknown, and it is by the establishment of that relation, and not by any development of the content of any antecedent act of knowledge, that it becomes known. I am not now speaking especially of our knowledge or perception of the Ego, but of knowledge or perception in general. This, whenever it occurs, is, I think, primary. If, then, in strict verbal adhesion to the form in which this subject has been placed before us, we concede that the Ego is known or perceived—and for the purposes of the present paper, I do not wish to draw any distinction between knowing and perceiving—we must also, I think, admit that such knowledge or perception is unanalysable, in the sense that it is primary and not derivative. Possibly, however, this is a concession which some may refuse to make, and perhaps it was with a view to the consideration of this rather than of any other point that the question we are at present discussing was framed. Do we then know or perceive the Ego? If by the Ego we mean the self, the abiding subject of our changing experience, and if by "knowing" we refer to knowledge of its existence, I have no hesitation in answering the question in the affirmative. As I have already said, in every act of knowledge two terms are related, and concerning each one we can say "I know." The light is not thrown only on the object, it falls, not less truly, though at times, perhaps, less strongly, upon the subject also. It is thus, I think, that we come to know that the self exists, and that it abides as the one permanent subject of varying feeling, and is not, as a distinguished writer says, whose words I quote from memory, "the shifting product of factors ever new."

The main proposition therefore which I desire to submit for your consideration is this:—that the Ego is a datum of consciousness, or, in other words, a fact of experience, and this I would contrast with the teaching of those who represent that it is an abstraction conceived by reflection upon experience. It is the

misfortune of my position that I am unable to advance anything which can in strictness be called a proof of it, for proof, if I rightly understand it, is purely a process of reasoning, and, therefore, cannot be applied to matters of fact which stand beyond the limits within which alone our dialectic can exercise itself. Facts are the *antecedents* and not the *consequents* of reasoning, and only when we are in possession of fact, does reasoning become possible. If then the Ego be a fact, and be apprehended as a fact in experience, and this is the position I assume, it follows that it is impossible to adduce any strict proof of the validity of our knowledge or perception of it. Facts are ultimates, and are perceived by their own light, and beyond them we cannot go. The only direct evidence that can, in the nature of the case, be adduced is the personal declaration that *I know*—for this is surely the correct word by which to describe a state of intuitive certitude—I *know* that I am something more than the sum of my phenomena, that I am one abiding self, the permanent subject of a varying experience, the unchanging agent of varying action. Whatever I do *I know* that *I* do it, and whatever I experience, *I know* that it is my experience. It is *I* who have my phenomena, not my phenomena which constitute me.

Having said this, I have done all that is possible to adduce direct evidence in favour of the proposition to which I have invited your attention, and, meagre though this may seem, it is all that one can do whenever any question is raised concerning question of experienced fact. In the last resource each one is confined to his own experience for his facts—he may base opinions or beliefs upon the experience of others, his knowledge can only rest upon his own. In like manner his own experience can never be a foundation for knowledge in anyone else, although it may justifiably be the ground of opinion or belief. Is the distinction drawn that the Ego is an *alleged* fact rather than a fact? Those, if any such there be, into whose experience it does not enter as a fact, may rightly thus qualify it, but to others it is simply a fact, and concerning it they can only say “I speak because I know.” Let us suppose that the proposition be challenged that the objects of external perception have an existence more permanent than and quite independent of that possessed by the state of consciousness through which we know them. Is not the last word in this case, as well as in the one more immediately concerning us, “I know,” and does not the long and yet unended conflict between the empirical and non-empirical schools of thought bear witness to the impossibility of proof? Let it be noted, also, that this conflict is sustained not for the purpose of ascertaining a fact, but of explaining one. That the independent more permanent existence I have mentioned is really possessed by the objects of external perception,

no one doubts, the only question, and it is one similar to that which concerns us here and now, is the very different one "can any explanation of the fact be furnished?"

Our knowledge of the Ego seems to me to stand in exactly the same position as our knowledge—this is the correct word—of a world of things. As a matter of fact the Ego is the subject of everyone of those states of consciousness or forms of experience in which that world is made known to us. The self and the world of things—if you will permit me for the sake of convenience, to use an expression which is only inaccurate and misleading in a point immaterial to our present discussion—these are the two terms which constantly stand related as subject and object, and upon the subjective reality we may repose with just as much certainty as we do upon the objective.

There is a school of thought which is characteristically prominent in the present day and which asserts, with perfect truth, that our philosophical investigations should start with simple facts, with facts untouched by any theory concerning them. When, however, the disciples of this School deal with the fundamental questions of psychology it appears to me that they are strangely false to their own principles. By a method of analysis fully as artificial as any they condemn, they tear asunder the two sides of the real psychological ultimate and start with the proposition "feeling" and "knowing" and "willing" exists. Is not the true starting point rather "I feel" and "I know" and "I will?" Certainly if we are to start from facts, it must be, for it is only to our individual experience that we can go for our facts, and this never presents us with feeling or knowing or willing without at the same time revealing the personal subject to which it belongs. As a simple matter of fact we do not know of the existence of any state of consciousness which is not a state of some person. Feeling exists, it is true, but, so far as we know, only as the feeling of some person, of some Ego, and the same experience which reveals the *feeling* likewise reveals the subject which possesses it, and without which, so far as our experience goes, it could not exist. It would be interesting to learn what can be said in defence of such a departure from the beaten track of experience, a departure which seems particularly strange and arbitrary on the part of those who assure us that along this part alone can certain truth be found.

Resting, therefore, upon experience, I declare that the self, like the external world of things, is apprehended by us as an existing reality or fact.

In thus accepting the facts of experience as real I may be challenging criticism from more than one quarter. It may be urged that our knowledge is only of phenomena, and that the real, if it be

contrasted with the phenomenal must lie wholly beyond our apprehension. This may be urged in the interests of those, who, following the principles of Hume, resolve experience into a dream without a dreamer, or of those who are attached to the complex and obscure metaphysics of Kant and his successors. To both I would say that I know of no other reality than that which experience reveals, but that experience does indeed reveal a reality which is not simply apparent, that is, is not phenomenal, I cannot doubt. I presume the truth which underlies phenomenism, in whatever system of thought it may appear, is this—that concerning the qualities and natures of things we can only know that which appears to us through the medium of our faculties. The content of our knowledge represents the result of the interaction of subject and object, but that the subject and object are known in the act of knowledge as really existing, irrespective of the guise they may assume, is not, I think, open to discussion. Certainly it is not, if consciousness of the presence of reality be the test of the presence of reality. That A is of a certain size, shape and colour, is a proposition which deals only with phenomena, but when we say that A exists, it seems to me that we are formulating a proposition with which no valid doctrine of phenomenism can deal. I do not say that objects exist within experience, for experience is, I presume only a collective name for the states and acts of an individual, what I do say is this, that experience reveals reality. The proposition is not "My experience contains the real thing A whether that A be the subject Ego, or a fact belonging to the outer world," but this widely different one—"My experience contains that which we call knowledge of the fact that A exists." It should be borne in mind that if we reject the meaning of reality here suggested, the word loses all significance, for the only reality we know is that to which we are introduced in experience, and the only ground we have for affirming that any reality whatsoever exists is the certitude given in experience, and in experience alone, that certain real things A, B, and C exist. I admit that in their own nature, as things in themselves, these realities lie beyond our reach, but the simple fact that they exist, and that they are the only realities to which we have access, is surely indisputable. In the same sense therefore that anything is a reality I venture to assert that the Ego is a reality. The only ground for affirming the existence of any reality whatever is that inner certitude expressed in the phrase "I know," and this is not less truly available in the case of the Ego than in that of any of the facts of the external world. I have sometimes seen the statement, and that from no undistinguished authorities, that the self and the external world of things are alike hypothetical. I must confess that, to say the least, I find it impossible to place myself in the mental attitude necessary to

believe this. It seems to me a proposition only possible when a long course of fruitless dialectic has drifted one out of sight of those immovable landmarks of fact which appear as ultimates in the experience of the individual, and have left indelible traces in the common speech and thought of mankind. That much which passes for a description of the realities revealed in experience is hypothetical, I not only freely grant, but strenuously maintain, but that the proposition which affirms that realities exist which though revealed in experience are yet independent of it, expresses a hypothesis, I cannot for a moment believe. If here we are dealing with hypothesis, when do we meet with fact? Of course, when we touch upon the metempirical nature of the realities thus revealed, we can but deal with hypotheses, and in this sense no small part of physics is purely hypothetical, but so long as we are concerned with the simple fact of the existence of these realities, and do not touch upon their nature or qualities save as these are known in experience, the opportunity for the introduction of hypotheses has not arisen. Now, concerning the Ego, I say simply this, that it exists and that it manifests its existence in a certain manner, that is, by revealing itself as the subject of experience. Concerning its nature, or, if we may use a purely metaphysical term with which, despite the professed positivism of modern thought we cannot dispense, concerning its essence, I say nothing. Thus confining myself to the realm of experience, and simply recording the data I find therein, I at no point enter, or attempt to enter, that mysterious cloudband behind experience within which alone we can, if we will, avail ourselves of the dim uncertain light of hypothesis.

I have almost reached the necessary limit of my paper; I have endeavoured to make my position clear as well as the short time at my disposal has permitted me to. There is much I am aware that deserves fuller treatment, and several points of great importance, which did not seem to lay in the direct line of the argument, have been altogether passed over. Before concluding, however, I should like to indicate very briefly the positions I should be disposed to take up against those who advocate systems of thought in which the Ego appears as a secondary conception. Besides appealing and attempting, as I have here done, to justify my appeal to individual experience I would urge that memory and a unitary experience such as we undoubtedly possess are not even partially intelligible and explicable, unless we start from the position I have endeavoured to elucidate. In doing this, I should make extensive use of that part of the well-known ethical treatise of the late T. H. Green, which deals with the spiritual principle in knowledge. To avoid misapprehension I would add that I totally dissent from the main proposition

of the subsequent section which treats of the spiritual principle in nature.

It will be noticed that I have used the words intelligible and explicable rather than possible. To employ the latter in such a connection as this appears to me almost presumptuous, for what can we know of the possibilities open to Nature or to the Source and Cause of Nature ; the most that we can say is that a suggested explanation does not seem adequate, or that a certain alleged causal connection of events is inconceivable.

II.—*By H. W. BLUNT.*

CONCERNING any reality we may perceive or know, i.e., we may know by direct observation or by inference, either that it is only or both that it is and what it is.

Of our knowledge of the bare fact of its existence, I think that no analysis, in the strict sense of the word, is possible. We either know that it is or we do not; the perception or knowledge is one indivisible act and has no elements. There may, however, be many such indivisible acts of knowing directly or derivatively or both, differing in kind, and an enumeration of the kinds of these would be in some sort an analysis. Moreover, if the knowledge is primary, we may unfold its conditions ; if it be derivative, we may expound the conditions of its derivation and point out the various elements of our experience which suggest it. This too would, speaking loosely, be analysis.

With regard to our knowledge of the nature of a reality or what it is, we may find that it itself is composite, resolvable into factors, and the enumeration of these is obviously a kind of analysis of our knowledge of the whole. Or we may find that it is one and indivisible, and in such case, knowledge of it would seem to share in these qualities and to be insusceptible, therefore of analysis ; although doubtless an enumeration of the kinds of acts in which we know it as unitary would be possible. What might appear to be a third case, viz., that though one and indivisible, our matter of knowledge might display stages of growth which might be known, and that the exposition in some form of these stages up to the present degree of evolution, could be called analysis, is not, I think, to be taken into account. The manifestation of what a thing was is only an unfolding of our knowledge of what it is, if the thing be composite and its past phases constituent factors of its present character. And specifically in the case of the Ego the grades of consciousness with accompanying self-consciousness pointed out by animal psychology and by

hypnotic experiment, are only data or material for the Ego as it is and is one. They are, perhaps, like it each an Ego or a self, but they are not it nor its parts.

I hold that the Ego is that we know that it is, and is one, and this alone; that in strictness, therefore, except in the lower senses of the word analysis which have been suggested, our perception or knowledge of it is unanalysable.

The Ego is and is one, and is present to every act of consciousness as subject. This is a postulate of experience, for, without this, any, the most rudimentary experience, such as without doubt we have is impossible. In the field of my consciousness at any moment there is, as a fact, a multiplicity of presentations bound together or synthesised. This synthesis is only possible if they all so to speak pass through a common point, or are presentations to a real Ego which is one continuous and abiding subject of presentations. The very fact that I am able to think of the Ego at all, even if it appears to me as an unconnected plurality implies, as Lotze pointed out ("Microcosmus," English translation, vol. i., p. 157), both its existence and its unity. This is the implication of any act of perception or knowledge. It is a fact of experience, or as I should prefer to say, a postulate or condition of experience. So far I go with Mr. Bontwood. But I find myself unable to say with him that we necessarily perceive or observe the Ego directly in every act of consciousness. It may be true that "the light is not thrown only on the object, it falls no less truly, though at times perhaps less strongly, upon the subject also," but the light may be thrown and perception of what is there may not follow. In reverie or ecstacy, e.g., the Ego is undoubtedly there, but it is not during such mental state that I perceive it to be there, rather afterwards upon reflexion I know that it must have been there. I was aware of objects, not of the subject. My knowledge of the Ego is an advance upon the "simple awareness" of such states. I scarcely recognise them as my states unless feeling forces me so to do. If there be direct perception of self, it is rather as the subject of feeling than as the subject of presentative knowledge. And I would prefer to say that even what Professor Baldwin ("Senses and Intellect," viii. § 7) has called "the vague feeling of the Ego which the first affective experiences afford," is not a knowledge of the Ego, but a stimulus or prompting which puts us on reflexion upon feelings first and then the presentations which they accompany, and that it is as the result of such reflexion that we have explicit self-consciousness.

How, indeed, is a subject, which in some sense at least cannot be object to become its own object? In any act of knowledge, there is a subject of knowledge, but if this is known explicitly without

reflexion, then this subject of knowledge is not the Ego which knows it. Like Hume, when I look for knowledge of myself, I only "stumble upon some particular perception or other. . . and never can observe anything but the perception." (Treatise of Hum. Nat. Pt. IV., cap. 6). But unlike Hume, I find upon reflexion that a subject or Ego, is implied in such perception, and thus, derivatively, I know the Ego as real and one.

I begin with the facts "I know," "I feel," "I will," but I do not, therefore, know therein the "I" that knows and feels and wills. I get to know this afterwards, having been stirred to reflexion by the specific facts of feeling or what not. Yet the existence of the Ego is a fact, not an alleged fact; the unity of the Ego is a fact, not an alleged fact; though I do not know them as facts in the first facts and acts of knowledge.

I confess I do not feel Mr. Boutwood's difficulty as to the derivation of knowledge, even knowledge of existence. I believe that I may get to know facts or existence even as the conclusions of syllogisms, and that these are new derived knowledge. And surely inferences, e.g., to the existence of a hitherto unsuspected cause may be valid; though the fact of its existence is implied in the data, surely it was not known before the inference. The development of the content of an antecedent act of knowledge may surely be itself the establishment of the relation of knower and known, and if this be so, Mr. Boutwood's antithesis of these two acts falls. Aristotle's answer to this paradox of the Platonic Socrates about the derivation of knowledge is an answer to Mr. Boutwood. I would maintain that our knowledge of the existence and unity of the Ego is derivative by reflexion on what is implied in particular acts of perception; while of these we are conscious, since any act of consciousness, like light, reveals both itself and its object—but not therefore its subject. This implication reflexion upon the particular act of consciousness, as a past event somehow—not grasped but—caught at by the Ego, proceeds to make explicit.

The vital feelings, the feelings accompanying effort, the distinction in perception of one's own body from other bodies, as it gradually arises, these seem to me to be some of the facts which prompt reflexion upon the Ego, and the consequent knowledge of it as a centre of reference for one's own unshareable acts of thinking, feeling, and willing. But as we fail to perceive the Ego and always in self-observation come upon some particular act, never upon the subject of acts, we discover, as a psychological fact that the Ego has not perceived itself, but only "the thoughts which are its predicates," which reveal it mediately when they are made matters for reflexion.

In our reflexion we find this empirical fact of psychology

endorsed by metaphysics which asserts that the Ego does not and cannot know itself except as being and as being one, still less does it or can it perceive itself. It can perceive its acts, and know these as its acts, and infer its own existence and unity, and that is all.

The Ego must be, and, as Anaxagoras said, must be a pure unity in order that it may rule and organise and know its presentations, as it does know them, in fact. (Aristotle, *De Anima* iii., 4, 429.)

But it knows itself only as existing and as one and otherwise unknowable, and this little it knows mediately *kata μεταλήψιν τοῦ νοητοῦ*. (Aristotle, *Metaphys.*, 7.)

Thus, though a follower of "the complex and obscure metaphysics of Kant," and of Aristotle, in so far as on this point they are in agreement, I find myself substantially at one with Mr. Boutwood, as to the reality and unity of the Ego, and as to the impossibility of an analysis. I differ from him with regard to the derivative character of our knowledge of it, but our difference seems to be largely verbal, as I admit that the Ego is implied in perception, and Mr. Boutwood only "leans" to the position that derivation of knowledge "from some antecedent knowledge or perception which did not have the object of that which is said to be derived from it as its object" is unthinkable. In fact, I suspect that unconsciously, perhaps, to himself, Mr. Boutwood has a leaning towards these same complex and obscure metaphysics.

III.—*By G. F. STOUT.*

IN what follows, I shall be very brief. On the main issue I find myself in agreement with the writers of the other papers. My views coincide most closely with Mr. Blunt's. His criticisms of Mr. Boutwood seem to me thoroughly justified. His own statements are, however, in my opinion, vague, if not incorrect, in certain respects. I select two points for special notice :

- (1) Our knowledge of the unity of the Ego.
- (2) The psychological development of self-consciousness.

(1) I admit and maintain that the Ego, as known to us by introspection, is a unity. But like Kant, I deny that we ought to treat the limits of our introspective knowledge as limits of real existence. The Ego is known to us as the one subject in antithesis to the plurality of presentations, feeling, and impulses of which it is conscious. In relation to these, it appears as a unity and it is only

in relation to these that it is revealed to us in internal experience. But are we to assume that the being, which is the subject of my consciousness is nothing but the subject of my consciousness? For instance, have I a right to say *a priori* that the Ego known to me as essentially pre-supposed in the synthesis of recognition which gives unity to my experience, is a different being from that which appears to the external observer as a brain? "No doubt," says Kant, "I as represented by the internal sense in time and objects in space outside me are two specifically different phenomena, but they are not, therefore, conceived as different things." Whoever is bent on transforming the simplicity and unity of the "I think," which accompanies all our representations into the simplicity and unity of a soul or spiritual principle must meet the objections of Kant before he can expect a hearing.

(2) Mr. Blunt says:—"The manifestation of what a thing was is only an unfolding of our knowledge of what it is, if the thing be composite, and its past phases constituent factors of its present character." There is here a tacit assumption that only when a thing is composite can its past phases be properly regarded as constituent factors of its present character.

This assumption seems to me to be over-hasty. Because we are unable to trace the growth or the making of a thing by noting the successive emergence of the elements which enter into its composition, it by no means follows that historical investigation will yield no insight into its character. That which is simple may reveal its nature in manifold relations to a multiplicity of elements. In this way, although it is itself a unity, its character may be regarded as complex. If the relations in and through which its nature is manifested, have been progressively acquired, we are justified in regarding its past phases as constituent of its present character. Moreover, we may, in tracing the history of this process, ascertain some general law or formula of development, which may be regarded as characteristic of the being whose nature it is so to develop.

Now in the case of the Ego, we find both of these conditions satisfied. With the growth of experience, self-consciousness becomes richer and fuller. It is true that the concept of a subject in the abstract as the necessary postulate of the unity of experience in general cannot become enlarged or enriched. But what each of us means when he uses the word "I" is not a subject in general, but the subject of those special experiences which compose the content of his own individual consciousness. From this point of view every new development in knowledge or in practical activity is a new development in our self-knowledge. A being whose attention is preoccupied from moment to moment by sense-impressions, cannot be self-conscious

in the same way as one who can look before and after embracing past and future in a single comprehensive view. Similarly the self-consciousness of a man who strives only after transitory ends is not the same as that of a man who pursues ideal ends. The Ego is always a unity, but is a unity essentially related to and qualified by a multiplicity which it unifies. As the content of consciousness becomes progressively enlarged and more perfectly organised, the conscious subject enters into new relations, and in this sense it may be said to develop. It is not itself composite, but it is the unity of a manifold which is continually growing in complexity and changing in character. As the manifold which is unified changes, the principle of its unity must be held to change. Thus I must hold as against Mr. Blunt that past phases in the existence of the Ego do help to constitute its present character, although I agree with him that the subject is as such, simple and invisible.

Moreover, there is discernible in this development of self-consciousness a pervading law or formula which must be regarded as essentially characterising the nature of the Ego. With a widening and deepening experience self-knowledge becomes more and more distinct, as the concept of the pure Ego becomes gradually disengaged from the special experience in which it is at the outset embedded. The conception of a pure Ego in contra-distinction from the entire content of individual experience in its specific variety is an extremely abstract and difficult conception. Between it and the dawning self-consciousness of the child, there are innumerable intermediate gradations. In each successive stage, a new advance is made by discarding from the idea of self the irrelevant matter with which it is at the outset blended. This process is, perhaps, never perfectly completed, except by the philosopher when he is philosophising. The philosopher, when he is not philosophising, will, like the rest of the world, use such phrases as "*I eat, I walk, I sit,*" thus showing that he does not distinguish his Ego from a particular object of his external experience, i.e., his own body. But the characteristic of the philosopher, quâ philosopher, is to rise above all such confusion. For him the Ego is an ultimate postulate of experience, not to be confused with any special content of experience. Self-consciousness in him reaches the maximum of distinctness, because his intellectual point of view is, in respect of form, the highest possible.

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THE PHILOSOPHY OF ROGER BACON.

By R. J. RYLE, M.A.

In asking you to turn from the examination of vital philosophical problems to the works of Friar Bacon, I feel that I am inviting you to a study of which the interest is almost wholly antiquarian.

The problems with which Roger Bacon concerned himself, when the scope of his universal learning led him to attack questions of philosophical (as distinguished from scientific) importance, have ceased to rank as living specimens. They are fossils.

And if it be true, as some say it is, that the problems with which the human mind busies itself are fundamentally the same in all ages, and appear merely to change because men invest them with changing shapes to accord with changes in life and language, still we cannot regard Roger Bacon as one who has played any part in the historical development of philosophical speculation. His position has always been one of curious isolation. In part this isolation may be attributed to the fact that (although he was much less indifferent than is generally supposed to the theological and peripatetic mode of thought of his age), his favourite studies were scientific rather than philosophical. In part it may be attributed to the fact that he was not a professor. Like Schopenhauer in recent times, his ways were not their ways, and he treated Albertus Magnus and Alexander of Hales very much as the great pessimist treated the salaried university teachers of his time. But still more, the isolation which marked the life of Roger Bacon and extended its influence over his works long after the death of their author, may be attributed to the fact that on some ground or other (as to the exact nature of which we can only speculate) he became obnoxious to the spiritual authorities of his order, who seem to have done their best to suppress, and did in fact partly suppress, both the man and his writings. For there is some reason to believe that Roger Bacon had in view the composition of an encyclopaedic "Compendium Philosophiæ" in which he would have expounded in detail his whole system of philosophy. Had he been able to accomplish such a work, the task of discovering his opinions on the philosophical questions of his age would have been much simplified.

As it is, we are left to form our conclusions from fragments and digressions which probably represent opinions expressed by him in different connections and at different times of his long life.

The materials which are practically accessible are as follows:—

1. The *Opus Majus*.—This is a large folio volume published first by subscription in 1733, under the editorship of Dr. Jebb. The work has been called by Whewell “at once the encyclopædia and the Novum Organum of the 13th century,” and it is by far the most important of Bacon’s writings.

2. A volume edited by the late Professor Brewer in the Rolls Series, and called *Opera Inedita*.

3. A very full and careful monograph on the Life and Writings of Roger Bacon by Professor Emile Charles, who is probably better known as editor of Arnauld’s *Port Royal Logic*. This work contains the result of much labour among the various libraries of Europe, and includes some account of several fragments of Bacon’s which probably no other human being has ever examined. It is a thoroughly appreciative memoir, and perhaps if it has a fault it is that the author sometimes seems to attribute to the Friar of the 13th century too decided an anticipation of the thoughts of the 16th and 17th.

The *Opus Majus* is the work upon which the reputation of Bacon chiefly rests. It is divided into seven parts, which deal with the following subjects:—

1. The four Universal Causes of all Human Ignorance.
2. That there is but one perfect wisdom and that this is contained in the Scriptures.
3. On the Usefulness of Language and Grammar.
4. On the Usefulness of Mathematics as shown respectively in—
 - (a) Human affairs, including astrology.
 - (b) Divine affairs, especially Biblical Chronology.
 - (c) Ecclesiastical affairs, correct settlement of Easter and other feast days.
 - (d) In matters geographical, political, and nautical.
5. On perspective, or more correctly, On Vision and the geometry of Radiation in general.
6. On Experimental Science.
7. On Morals. This last portion of the *Opus Majus* is not included in Dr. Jebb’s edition of that work. It has, I believe, been subsequently published by Professor Ingram of Dublin. I have not seen this treatise, but from the analysis which Professor Charles gives of it in his monograph it would seem that it was a kind of miscellany composed in part of Scriptural and patristic, and in part of secular learning, in which the Bible, and St. Augustine, Aristotle, Cicero, and Seneca, are somewhat crudely mingled.

The *Opus Majus*, bulky though it was, was not, it must be remembered, a learned treatise written for serious students. It was

written and sent to Pope Clement IV. in answer to a request from the latter for some account of the views and discoveries of which the Pope had heard reports. So far from being an abstruse work it is remarkable for the clearness of its explanation, and for a rather studied avoidance of technicalities, so that Roger Bacon may fairly claim to be regarded not only as one of the first devotees to Natural Science but also as one of its first popular writers.

Having completed it, he lost no time in following it up by another work (the *Opus Minus*), which was intended as an explanatory summary to the *Opus Majus*, and this again he followed by the *Opus Tertium*, which bears to the preceding books the relation of Prolegomena. The latter work (*Op. Tert.*), which is published in Dr. Brewer's *Opera Inedita* is the most readable of Bacon's writings. It contains much autobiographical material and is burdened by less diffuse style and a smaller quantity of historical, geographical, and numerical details.

It is in fact an epitome of the *Opus Majus*, with additions, of which the object was to emphasise what Roger Bacon thought to be the most important discussions in the larger work, and to supplement certain expositions which he had there given more briefly.

Like Francis Bacon, the old Friar opens his chief work with a short summary of the lessons he thinks mankind should learn concerning the path of wisdom.

As to Sapientia, or Wisdom, he says "we have to study both what is required for its attainment, and what are its bearings on practice. For in truth, Wisdom is that by which the Church of God is ordered, the republic of the faithful is governed, the conversion of the Infidel is brought about, and by which those who refuse to be converted are expelled and repelled better than by the shedding of Christian blood."

Of the difficulties which hinder its attainment we must first consider those which are the product of our own mental constitution. These may all be classed under four heads:—

1. Fragilis et indignæ auctoritatis exemplum.
2. Consuetudinis diurnitas.
3. Vulgi sensus imperiti.
4. Propriæ ignorantiae occultatio cum ostentatione Sapientie.

Of these "Offendicula," as he calls them, the first three are in the mouth of everybody. We are always being told,—

Hoc exemplificatum est.

Hoc consuetum est.

Hoc vulgatum est.

But the most baneful of all the "offendicula" is the last,—the

concealment of our own ignorance with the display of apparent wisdom.

By an ingenious little stroke of social psychology he even shows this fourth stumbling-block to be the real source of the other three; for, *in the first place*, in our anxiety to make the most of our own opinion and to conceal our real ignorance we are too ready to lean upon some insufficient authority (*i.e.*, we meet the first offendiculum). *In the second place*, from a natural love for our own views we readily erect our opinion into a habit, "trahimus in consuetudinem" (second offendiculum). *In the third place*, since no one errs by himself alone, but each delights to scatter his own views abroad, others are quickly infected; whence arises Sensus Vulgi (third offendiculum).

On reading this summary of the "offendicula" which prevent the attainment of Wisdom, it is impossible not to be reminded of the *Idola* of Francis Bacon; and looking superficially at the groups of offendicula on the one hand, and of Idola on the other, we are at once struck by a certain resemblance between them. In Francis Bacon's earlier work, *Advancement of Learning*, the three which he there enumerates, viz., *Idola Tribus*, *Idola Specus*, and *Idola Fori*, inevitably suggest the *Auctoritatis exemplum*, the *Consuetudinis diuturnitas*, and the *Sensus Vulgi* of his predecessor. The resemblances, however, diminish on closer examination. The *Idola* of the later writer form a systematic and comprehensive classification capable of very general application, but the *Offendicula* of the earlier writer are, I think, conceived in a far narrower spirit, although they are set forward in language of rather magniloquent generality. They are put in the forefront of the treatise, but are not either fully or precisely elaborated in the sections which follow. In fact, my own perusal of the *Opus Majus* has given me the impression that Roger Bacon had chiefly before his mind the claim of the "natural sciences," and that under the form of universal statements he wanted to indicate the causes which seemed to him to have led men to neglect these studies. To his own mind the offendicula he enumerates were probably only of importance as a convenient vehicle for illustration of his main point. Others, however, have taken them more seriously, and have not merely compared them with the *Idola* of Francis Bacon, but have even suggested that they were the source from which these were derived. Ellis and Spedding, and more lately Professor Fowler, have opposed this suggestion with some vehemence, chiefly on the ground that Francis Bacon was unlikely to have known of a work which still existed only in manuscript. This defence does not seem to me to carry much weight. Indeed, when it is remembered that the great chancellor was an intimate friend of Selden, who is known to have been an admirer of the *Opus Majus*, and that the study of manu-

scripts was a more common thing then than it is now, there seems to me to be some probability the other way. The correspondence, however, between the *Offendicula* and *Idola* are really too loose and general to be of much consequence. On the other hand, the differences are numerous and well marked.

Roger Bacon has sometimes been claimed as a forerunner of Descartes, and Bacon, and Galileo, because "he condemns authority" in the search for truth, rejects Aristotle, advocates investigation by experiment, and wastes no time on Metaphysics, because, in short, he corresponds with the ideal which the 19th century holds up for particular admiration. The real Roger Bacon, however, was nothing of the sort. Still less can it be said of him, as an imaginative writer in the *Nineteenth Century* wrote a year or two ago, that he drove the first nail into the coffin of Theology.

To begin with, when we find him discussing *Sapientia* and its attainment, we must not omit to notice (as I think his admirers have been prone to do) that, as he himself says, he is not discussing it "secundum se," but in its bearing on the well-being of the Church, on theology or divine wisdom, and so forth. Next we must observe that he expressly guards against any suggestion that he disapproves of the general principle of Authority.*

He has no intention, he says, of attacking "solid and true authority conferred by God, or belonging by merit to holy prophets and teachers." The authority which he means to condemn is that which "many have usurped from presumption," and so forth.

Furthermore, we must confess that there is a somewhat unphilosophical simplicity in the remedy which he proposes for the serious "offendicula" above-mentioned. We must, he says, oppose strong authors to weak ones, reason to custom, opinions of saints and wise men to the sense of the crowd, and so on. In dealing later on with "Experientia" it will again be necessary to indicate some features in his teaching which have been scarcely noticed by his more ardent admirers.

When, too, the statement is made that Roger Bacon rejected the authority of Aristotle, and declared that it would have been well if all his writings had been burned, the real Roger Bacon is seriously misrepresented. In reality, Roger Bacon always spoke of Aristotle in terms of the greatest respect and admiration. He regards him as the greatest of the philosophers, and in respect to human wisdom he says that he holds the place which St. Paul occupies among the sacred

* It has been suggested that as the *Opus Majus* and the succeeding works were addressed to the Pope we cannot take this to have been an expression of his true opinions. Servility, however, does not seem to have been one of his characteristics.

writers of apostolic times. He remarks, however, that he was not infallible, and that he has in some points been corrected by later writers, especially by Averesa and Avicenna.

Having laid down the obstacles to attainment of wisdom, he proceeds next to establish its nature. In his view all wisdom is to be found in the Sacred Scriptures.

His position with reference to authority and to the Church was therefore by no means that of a rebel. There is no sufficient ground for the statement that he was an "insurgent," or drove the first nail into the coffin of theology.

His attitude was not, however, one of mere uncritical acquiescence. In one of his works he enunciates and discusses seven serious faults in the studies of the Latin Church.

1. That philosophy has too dominant a place over theology, the mistress of the sciences. Most of the questions discussed in highest theology are philosophical, not theological—the heavens, matter, being, species, knowledge which the mind acquires through species, duration, time, &c.

It does not, he says, belong to theologians to investigate these problems. Theology should relate those truths which philosophy determines.

2. That theologians are not familiar with the chief sciences, which are closely related to theology, e.g., grammar, mathematics, perspective, moral and experimental science.

3. The sciences which they do profess to have a mastery of are not known well, viz., Language of Latins, Logic, Natural Philosophy, and Metaphysics, chiefly because of implicit trust in Alexander of Hales and his "Summa."

4. Preference of book of Sentences to the Text.

5. Errors in Vulgate translation (greater than any of these).

The text he calls "corruptus horribiliter," suggests complete revision as worthy the Pope's attention; commends Jerome; discusses various versions.

6 and 7. That errors in literal imply errors in spiritual interpretations.

Bacon, as Professor Maurice said, deserves thanks of all liberal theologians.

The second book of the *Opus Majus* deals with the unity and divine source of all wisdom. One argument by which this view is supported is of some interest.

It will be remembered that in dealing with the act of Reason in thinking Aristotle had so distinguished between what he called respectively the active and the passive Intellect that two possible renderings might be given of his teaching.

The active Intellect might be taken to be one function or factor

in a given human Reason, and the passive another—the two being related somewhat as the Sense and the Understanding, or the Understanding and Reason are in Kantian Psychology.

Or it might be said that he taught that the active Intellect is an agency existing altogether apart from the human mind and acting on it from without. The latter interpretation gained the active advocacy of Alexander of Aphrodisias. It became in various forms a favourite tenet of the Arabian philosophical school, more especially of Averrhoes, and from this source made its way into the lecture rooms of Paris and Oxford. Probably it gained more acceptance from the Franciscan than from the Dominican Order, as did other Averrhoistic doctrines. Traces of it may be found in the writings of Grossetête, the first Rector of the Franciscan Order at Oxford, and even in Bacon's eminent successor, Wyclif. According to Bacon this interpretation of Active Intellect is the one which is in best agreement with the original text of Aristotle, and is supported by Alpharabius and all the most learned of the commentators. On this view all human wisdom is divine illumination. As another argument in support of the Divine origin of all human wisdom, Bacon adduces the doctrine of Final Causes in its crudest form. Aristotle and Avicenna, he tells us, failed to explain the Rainbow because they knew not its final Cause. Now we know from Genesis that the final Cause of the Rainbow is the Dissipation of Moisture. Accordingly, our theory of the Rainbow, with this datum as a starting point, has only to show the process by which this dissipation of moisture is brought about. Here, truly, was an instance of what Kant has called the "Indolence of Reason, which means the sacrifice of all real insight," and a wide departure from the teaching of his great successor.

With this doctrine of the Unity (and at the same time divinity) of all human knowledge thus established, Bacon next proceeds to deal with the best means of attaining that which sometimes he calls Wisdom, and sometimes Truth.

In the forefront he places Language. But in doing so he is not actuated by any recondite belief as to the relations of language to thought, or even by a feeling of its importance as the materials of Logic. Doubtless he was aware of the serious import of Language in Logical controversy (which was recognised by Abelard and others before him in the Middle Ages), but to Roger Bacon knowledge always seemed to be the first thing, and Ratiocination the second, and so he advocates the thorough study of Languages, because (he says) "Languages afford the key to the sources of all our Latin wisdom."

He points out with much force the errors which had been born of bad translations both in sacred and in secular learning. He declares that the world would have been the gainer if all *translations* of

Aristotle's writings were burned. He points out that the text of the Vulgate (of that day) is "Horribiliter Corruptus," and urges the Pope to have a Revised version made. He even goes so far as to hint that all languages are fundamentally one, differing only in structural details; and there exists in MSS. (Corpus Library) a rough attempt at the beginning of a sort of Comparative Philology.

After Grammar or Language we should have expected to be introduced to Logic as the next portal in the house of Wisdom. Such, however, was by no means Roger Bacon's scheme. "Knowledge of Language," he says, "is the first gate of Wisdom, especially for the Latins . . . and the second gate is *Mathematics*."

As for Logic, he says, "Non vis est tanti." "We all know Logic by nature, and when we set to work to learn Logic we learn not the science of Reasoning, but the language of the science of Reasoning. The Laici have not the terminology which the Clerici use, but they have the same mode of refuting fallacies and of establishing their opinions." Again, he says (and here I think he seems to express the feeling to which, later, Francis Bacon, Locke, and Hobbes gave expression in different ways), "Even though for arguing we have been schooled in the logic of Aristotle, yet when we come to deal with the difficulties of other sciences we do not take into account the Art of Aristotle, because we do not know whether the question before us is a problem of genus or of species, or what it is. Moreover, we do not know which Aristotelian method ['consideratio' is his word] we are to employ upon the problem."

By Mathematics Roger Bacon meant chiefly Geometry, and certain parts of what we now call Physics or Natural Philosophy, and he has no difficulty in making out his case for Mathematics as one of the chief gateways to Wisdom. He shows that no other science can go on without measure and number. The subject also is particularly suitable for early training, for it is "quasi innata cognitio." Historically, too, it is the earliest in origin. Moreover, it is easier of acquisition than either Natural History, Metaphysics, and Ethics. Again, it teaches demonstration "*by necessity*," whereas in metaphysics we only have proof "*per effectum*." Again he says, the path of learning for us leads from Sense to Intellect. Quantity is essentially sensible, and the foundation of all knowledge is the recognition of less or more. But besides these general considerations, he has a yet stronger ground for regarding Mathematics as "prima scientiarum." We can only know things by their causes. Now the causes of things terrestrial are of celestial nature. In other words, events which take place here on earth take place when they do and as they do because of particular movements and relations of the celestial bodies which influence them. In other words, mathematics were of primary

importance because Astrology was among the most important of human studies. I need not say that belief in Astrology was, in the days of Roger Bacon, as common as the belief in Evolution is at the present moment. And like theories of Evolution, Astrological theories lent themselves readily to *systems* of Fatalism, Materialism, or Necessarianism. Holders of Averrhoistic heresy, in fact, were, generally speaking, guilty of (or were at least accused of) denying free will if they made the mechanical aspect of their Astrology too conspicuous. Indeed it is quite possible that this may have been the stumbling-block which led to the imprisonment of Roger Bacon in the 13th century.

In view of these opinions nothing would be more important than the study of the *transmission of Influence* generally, and to this subject Bacon devotes a long and curious quasi-mathematical digression.

All the events in Nature, he says, are brought about "per efficiens et per materiam," and in all cases, "whether they happen, as people say, by special divine action, or by angels, or by devils, or by chance," their mode of occurrence depends on "Multiplicatio Speciorum." This phrase may be variously rendered "mode of propagation of influences," or "transformation of impressions," or "direction of Radiation." In modern language we should say that the treatise dealt with the physics and metaphysics of any action in which place is concerned. It includes an admirable exposition of the main facts of refraction and reflection of light on the one hand, and on the other some terrible trifling and special pleading intended to show the importance of a knowledge of the laws of Radiation to Theologians. Without such knowledge, it is said, the theologians will not properly understand the temptations of the devil which occur in the case of sight. Together with this treatise Bacon sent the Pope a glass globe or lens in illustration of his views, and he observes that when, as in the case of light, the multiplication of species (or, in short, the path of the rays) is made evident by the burning glass, we are proving cause by effect. Whenever we make the same thing clear by Geometry we are proving effect by cause.

But for Roger Bacon physics and metaphysics were too closely joined (or perhaps we may say confused) for him to stop at this point. Accordingly, from "the efficient" he passes on to the "passive," or Material cause.

As to "Matter," he holds an opinion which Professor Charles thinks shows a bold originality and profundity of no common kind. It is not for me to say whether the view which he presents is really preferable to the twelve or thirteen other variations of the one fundamental conception which have been distinguished among the writers

upon "Materia;" but I must confess to much doubt as to its originality with Bacon !

"The common opinion," he says, "on 'Matter,' both among theologians and philosophers, is that Matter is 'numerically' one."

In other words, the material, as distinguished from the formal, element in all Substance, whether spiritual, corporeal, single or compound, terrestrial or celestial, is one and the same. Now this is, in Bacon's view, grave philosophical error, and at the same time dangerous heresy. Form, it must be allowed, he says, appropriates its own matter. When, therefore, matter is one, Form too will be but one. Thus the essential diversity of all things will be abolished, and by unavoidable consequence we shall reach the conclusion that Matter is God.

In Bacon's opinion the mistake lies in the common supposition that diversity is constituted by Form only. Bacon, on the contrary, holds that just as it is to be held that there is variety of Form, so, too, is there such a thing as an essential variety of Matter. "Ipse Materiæ sunt diversa in materia specifica secundum se." So that, in his view, one thing may differ from another either as to form, or matter, or both. Difference in respect to one does not depend on difference in respect to the other.

We are only justified, he tells us, in saying that there is one matter of all things, when we explicitly refer to some *Genus Generissimum*.

So if speaking of physical or natural objects we may say they all have one and the same physical or natural matter; that is to say, they are all *bodily* as distinguished from *celestial*, and so on. This, he remarks, is the sense in which we use the word **Matter** in the whole field of Natural Philosophy.

It is interesting here to see a recognition of a line of demarcation between the phenomenal or sensible on the one side, and the logical or intelligible on the other. It is easy, too, to see that by bringing forward the notion that the origin of diversity is in matter rather than in form, and at the same time suppressing the distinction which Roger Bacon here practically draws between the logical and the sensible employment of the word "matter," we should quickly be landed in a kind of Pantheistic Materialism, and this appears to have been exactly the course which speculation took with Giordano Bruno in the 15th century.

From matter and form the line of discussion runs easily along among problems of place, time, duration, motion, and the relations of all these to bodies as well as to disembodied spirits, angels, devils, and so on. The question of the finite, or infinite, nature of the world, too, comes up for treatment, and is very curtly settled quite

to Bacon's satisfaction by a proposition of Euclid. It is needless to add that the doctrine of the world's Infinity was to him heretical, on grounds very similar to those which made the Unity of Matter an untenable heresy.

With reference to these and other "metaphysical" questions, it is probable that we do not see Roger Bacon at his best. The only published and complete works of his are the *Opus Majus* and the introductory treatise *Opus Tertium*, and in both these works he clearly feels himself to be writing to one who was not familiar with the subjects dealt with, and, accordingly, he touches almost superficially on many difficult and interesting questions.

Professor Charles in his interesting monograph gives several extracts from an unpublished work, the *Communia Naturalium*, which, in all probability, was intended to form a portion of an Encyclopædic Compendium Philosophiæ, destined never to be finished. In this work it seems probable that his treatment of metaphysical questions was much more serious and thorough.

From this fragment we learn that on the grand question concerning Universals he was on the side which claimed priority and predominance for the Individual as against the Universal. "One Individual excels all the Universals in the world, for the Universal is naught without a concurrence of Individuals." Moreover, he adds, "since all my writings are undertaken with a view to theology, theological considerations show that the Universal cannot be compared with the Singular, for God did not make this world for Universal man, but for single people. The Individual has priority by Nature, by Operation, and by Intention. It has being by itself. The Universal, on the other hand, is only that in which one thing is in agreement with another. It has no being of its own. 'Non est aliquid absolutum nec per se potest existere sed in individuis.'" He does not, however, accept the doctrine that the Universal exists in pure thought only; this would be, he thinks, equivalent to supposing that one thing imitates another, but does not participate in its nature. He explains that he follows Aristotle in holding that a thing has two sets of characteristics. The one set proper to itself alone, individual and singular. The soul and body of a man are instances in point. The other set are Relative, dependent on relations to other individuals, with which it is allied by some specific community of nature. An instance is the Humanity of a Man. Bacon rejects emphatically the opinion of Plato that Universals are Ideas, and, after criticising four other opinions, asserts his own view that the Universal exists only in the Individual, and does not depend at all upon the soul.

I have purposely, in the preceding notes on Roger Bacon's

philosophy, passed over what, in fact, constitutes his peculiar title to fame, viz., his writings on the Natural Sciences.

Under this heading have to be enumerated a long treatise on geography and climate, and an elaborate chapter on what may be called theoretical and practical (that is astrological) astronomy. In this is contained his discussion of the calendar and his proposed emendation of it, which emendation, had it been adopted, would have enabled Clement IV. to anticipate by centuries the great reformation of the calendar, which was first publicly perfected long afterward.

In a scientific and philosophical point of view the most important physical treatise was that which constitutes the fifth book of *Opus Majus*, under the title of *De Perspectivis*. It is a complete treatise on Vision and on Optics, based in part upon Aristotle, Galen, and the Alexandrian anatomists, so far as concerns physiology and psychology of vision, and in part on the great work of Ptolemy upon Optics, as well as on the writings of Alhazen and Avicenna.

It is the most thorough and elaborate part of the *Opus Majus*. Bacon himself considered it his chief work, and it continued (unlike the rest of his works, which seemed to have sunk into oblivion) to be regarded as a standard work till the 16th century.

A more interesting chapter for the light which it throws on what may be called Baconian method, is the sixth, *De Scientia Experimentali*. It is familiar to many from the summary which Whewell has given of it in his *History and Philosophy of the Inductive Sciences*.

It opens as follows, "Having dealt with those principles of the wisdom of the Latins, which have their source in Language, Mathematics, and Optics, I will now consider those which are based on Experimental Science, for without experience nothing can be known sufficiently. Reasoning closes and makes us close a question, but it neither establishes certainty nor removes doubt." However good the arguments, he seems to say, we must, if we possibly can, add verification by way of *experience*.

Experimental science, he tells us further on, has three great "prerogatives" (F. Bacon's word) when compared with others.

1. It tests the conclusions of all others.
2. There are discoveries and inventions beyond the reach of other sciences which are dealt with by this *Sola scientiarum domina speculativarum*. (Here we have something of the mediæval magician.)
3. There are many hidden wonders within the range of this science unknown to the students of other sciences; among the wonders we find stories of flying dragons, and of wonderful medicines

proved by circumstantially given examples to have prolonged life for hundreds of years.

In illustration of the value of what he calls experimental science, he gives a very full investigation of the rainbow, which may fairly be compared with Francis Bacon's account of the collection of Instances with inclusions and rejections, or with his investigation into the Form of Heat.

Here, however, as elsewhere, it is easy for one who appreciates the evidences of the inductive spirit in Roger Bacon to select the sentences and paragraphs which best seem to display it, to the neglect of others which throw a different signification upon his words, and lead to a more qualified admiration.

To begin with "Scientia Experimentalis," in Roger Bacon, is *not* what we mean by experimental science.

Roger Bacon makes no distinction between a method of investigation and a body of truths. Also, he did not recognise any distinction between "Observation" and "Experiment," as (at least since the 16th century) we have generally done. To his credit it must be said, in his discussion of the Rainbow and of other prismatic effects, he shows that his practice was much ahead of his theory in respect to method. Moreover, not only does he use the two words Experientia and Experimentum indifferently to signify an observation or an experiment, but also the very word "Experientia" cannot be quietly rendered "Experience" without some risk of mistake.

"Experientia," he says, "is twofold; one kind is by means of our outer senses, as, e.g., when we learn astronomical facts by experience." But this kind of experience is not enough for man. "It does not give him complete certainty, even as to physical things, and as to spiritual things it fails altogether." The intellect of man, therefore, wants help from elsewhere, "and so," he says, "the holy patriarchs and prophets who first gave the sciences to the world, received inward illumination in addition."

With these two orders of experience, it is quite clear that, as regards the method of science, Bacon was still in the age of Innocence. There was, as yet, no ray of light, either as to the theory of Induction, the nature of Proof, or the meaning of Knowledge.

A general survey of the published works of Roger Bacon cannot fail to leave the reader with a favourable impression of his immense learning, his energy of character, and his vigour of thought. But in philosophical (as distinguished from scientific) activity, it may be doubted whether the claim which has been made for him to stand beside St. Thomas, Duns Scotus, and Ockham is not an exaggerated one.

In regard to originality it appears to me that Whewell has some-

what overestimated him on the side of natural science and Professor Charles on the side of Philosophy. The late Mr. G. H. Lewes pointed out how very large was Bacon's indebtedness to the Arabian writers, and I think that there were two other great men from whom he derived some of his learning and doctrines. These were Ptolemy in all matters relating to optics, and Grossetête, afterwards Bishop of Lincoln. The latter wrote largely upon the very subjects which Roger Bacon especially cultivated, and from the often repeated admiration which Bacon has expressed for him it is not unlikely that the MSS. of Grossetête, which remain unpublished in the British Museum, would be found to be the source of many of the teachings of the *Opus Majus*.

In respect to practical familiarity with the details and instruments of physical science Roger Bacon was, no doubt, the superior of his great namesake. His discussion of astronomical chronology, of latitudes and longitudes, of the methods and instrumental requirements for the estimate of celestial altitudes, and so on, show him to have been a man who had practised the observations he described. Francis Bacon's natural science, on the other hand, was of the most dilettante description.

As a writer on method, however, it is, I think, only by what Mr. Lewes calls "yielding to the common temptation of reading into ancient texts the views of modern thinkers," that he can be compared with Francis Bacon. The *Novum Organum* is, at any rate, the grammar of Inductive Philosophy. It does, in great measure, bring into the form of a philosophical system the main principles of Inductive Enquiry. Roger Bacon, in so far as he was a student of natural sciences, was a great forerunner of the coming time of Kepler and Galileo, but in his account of the method of science his apparent approximation to the thought of the 16th and 17th century was more verbal than real.*

Like Christian in the early part of the *Pilgrim's Progress*, his face was turned away from the City of Destruction, but the burden had not yet fallen from his back.

* If in some respects his attitude is independent and critical, yet his habitual use of authority and still more his consistent decision of all questions by their bearing on theology show that his general philosophical position was that of his age and church. Prof. Charles and Durhring claim that his merit lies in the fact that he was in the 13th century, but not of it. To me it seems that this claim is an exaggerated one.

DARWIN AND HEGEL.

By D. G. RITCHIE.

In every age philosophy has been affected by the sciences, i.e., the methods and conceptions which are used in the attempt to make some particular province or aspect of the universe intelligible have exercised a fascination over those who are seeking to understand the universe as a whole. And this is only natural: for the philosopher, who is really the philosopher of his own age and not the survival from an earlier epoch, is the product of the same intellectual movement which has led to the adoption of new methods and new conceptions among those who are pursuing special branches of knowledge. The difference between the genuine philosopher and the average seeker for "completely unified knowledge" is that the former has a fuller and clearer consciousness of the methods and conceptions he is using, and is less likely to apply them uncritically and in disregard of the subject-matter to which he is applying them.

Mathematics was the only science that had outgrown the merest infancy among the Greeks. And in the Pythagoreans we have an example of philosophers who were completely carried away by the fascination of the conceptions of number and figure. In defining justice as "a square number" the Pythagoreans were for the first time attempting to make ethics "scientific," i.e., to lift reflection on human conduct out of the region of proverbial moralising by applying to it the most scientific catégories of which they knew. Plato has puzzled many generations of commentators by those mystic numbers which he introduces into his philosophy; in all likelihood he only half believed in them (if so much as that), and he seems to be playing an elaborate and rather cruel joke on literal-minded persons, hinting all the while at the inadequacy of the Pythagorean symbols. Aristotle introduced mathematical formulæ into ethics, but only with carefully expressed modifications. His conception of scientific method comes, indeed, too exclusively from mathematics; but he is in advance of many modern moralists in seeing that human conduct at least is too complex to be studied by mathematical methods.

It might be objected, that in mediæval philosophy the principle I have laid down did not hold, but that the reverse was the case, that philosophy was not affected by the sciences, but that the sciences were "corrupted by metaphysics." The study of nature, however, was by no means that on which the mediæval intellect exercised itself. There were in truth only two "sciences" in which the mediæval mind

took a living interest, viz., moral theology and law—that is to say, the application of a supposed divine code to the particular cases of human conduct and the application in the same way of a human code assumed to be of supreme excellence. Physics was only a tradition (of course I am speaking roughly of what is true "on the whole"). The words of Aristotle or of Galen were accepted on authority. In these sciences, however, where authority is a matter of necessity, the utmost ingenuity of mind could be exercised in bringing general principles to bear on particular cases. Thus the abstract, deductive, and argumentative method actually employed in the sciences of legal and moral casuistry reacted on the interpretation given to Aristotelian logic and on the general theory of method adopted. Aristotelian logic was itself based on the method of geometry. Add to this the mediæval habit of bowing to the authority of the written word in every department of thought and life, and we can easily see the source of the mediæval conception of system in philosophy.

In the seventeenth century the effect of geometrical method on Hobbes and on Spinoza is sufficiently conspicuous.* The conceptions of mechanical physics assert themselves throughout this, and still more in the following century, even where the philosopher, in the interests of literary form, is careful to eschew the appearance of science. John Stuart Mill's phrase, "mental chemistry" (*Examination of Hamilton*, p. 357, ed. 5), suggests a new set of categories which raise the "association" psychologists above the level of their predecessors who used the categories of mechanics. In the present age the most conspicuously advancing science is biology; and the categories of organism and evolution are freely transferred to philosophy with the great advantage of lifting it out of the more abstract conceptions of mathematics or mechanics, but too often with insufficient consciousness of what is being done, so that striking metaphors are mistaken for indisputable facts or laws.

Now, there were "evolutionists" before Darwin, and even before Mr. Herbert Spencer, who seems to wish to take out a patent for the invention of the theory, and conspicuously calls the attention of a careless public to the fact that his essay on *Progress: its Law and*

* With regard to Hobbes, compare Aubrey's story, quoted by Professor G. Croom Robertson *Hobbes*, p. 31: "He was forty years old before he looked on geometry, which happened accidentally: being in a gentleman's library in ——, Euclid's *Elements* lay open, and it was the 47th Prop., Lib. I. So he reads the proposition. 'By G—,' says he, 'this is impossible!' So he reads the demonstration, which referred him back to another, which he also read, *et sic deinceps*, that at last he was demonstratively convinced of that truth. This made him in love with geometry."

Cause appeared in April, 1857, whereas the *Origin of Species* did not see the light till October, 1859 (see preface to 4th edition of *First Principles*). Evolution is in every one's mouth now, and the writings of Mr. Spencer have done a great deal (along with the discoveries of Darwin) to make the conception familiar. But nothing grows up quite suddenly. During the latter half of last century many isolated thinkers had in this or that department of science come to apply the idea of development. Though in Kant as a philosopher the idea of evolution, and indeed the whole conception of historical growth, is conspicuously absent,* yet the same Kant, as a man of science, was the author of the nebular hypothesis. Vico and Montesquieu had, still earlier, suggested a way of looking at human institutions, which was not fully understood till several generations had passed. Above all, in biology Erasmus Darwin (*Zoonomia*, 1794) foreshadowed the work of his grandson. Buffon, Geoffrey St. Hilaire, Lamarck, had all attacked the orthodox dogma of immutable species; and perhaps Lord Monboddo should not be forgotten, for his speculations on the origin of man became widely familiar, since the very shallowest wits could raise a laugh about them. Goethe, who, as an old man of eighty-one, was more excited by the news of the dispute between Cuvier and St. Hilaire than by the news of the July Revolution, had forty years before (1790) published his *Metamorphoses of Plants*. Thus Hegel grew up in an intellectual atmosphere in which the conception of evolution, and especially of biological evolution, was no inconsiderable element. For Goethe's general view of nature he had the greatest sympathy—so much so indeed as to lead him to defend Goethe's theory of colour against the Newtonian theory, a defence which has brought Hegel into much discredit with the modern scientific mind. What attracted Hegel in Goethe's view of nature (as Mr. S. Alexander has well pointed out in *Mind*, xi, p. 511), was that sense of unity or totality in nature which the poet's feeling grasps, but which is apt to escape the analysis of the scientific understanding (*Cf. Naturphilosophie*, pp. 317, 318, 483): and it was perhaps worth while to remind the world that to regard light as composed of different

* Of course such a statement is only relatively true—*i.e.*, if we compare Kant with Hegel and other philosophers of this century. Kant does maintain the idea of *progress* in human society, and explains it as due to the “unsocial sociability of men”—by which he clearly means “repulsion” and “attraction” (concepts borrowed from physics). He is quite aware that the “original contract” never took place as a matter of fact in history, but he prefers to think out problems of politics with the help of these unhistorical fictions. Here, as everywhere, the abstract line which Kant draws between what is *a priori* and what is *a posteriori*—between the form of thought and the matter of experience—prevents him from seeing a thought-process in the time-process.

colours is only a way of making the concrete facts of nature intelligible to ourselves. In the same spirit Hegel complains (p. 489) that the botanists of his time did not appreciate Goethe's *Metamorphoses of Plants*, and "did not know what to make of it, just because what was represented therein was a totality (*eben weil ein Ganzes darin dargestellt wurde.*)" Goethe gets behind the difference which to the ordinary eye and mind splits up a plant into a combination of unlike parts (root, stem, branch, leaves, blossoms, fruit) and sees all these as the differentiations of an identical nature (*Grundwesen*).

In his *Zur Morphologie* (written in 1795, published in 1807) Goethe formulates the law that "the more imperfect a being is the more do its individual parts resemble each other, and the more do these parts resemble the whole. The more perfect the being is the more dissimilar are its parts. In the former case the parts are more or less a repetition of the whole; in the latter case they are totally unlike the whole. The more the parts resemble each other, the less subordination is there of one to the other. Subordination of parts indicates high grade of organisation" (Lewes' *Life of Goethe*, p. 358). We are familiar with this in another form: "the change from an indefinite incoherent homogeneity to a definite coherent heterogeneity." Goethe has anticipated Von Baer's law, enunciated in respect of embryology (1828), which forms the essential part of the formula Mr. Spencer as a philosopher has applied to the whole universe.

Evolution was thus familiar to Hegel, both the theory and the word. Everywhere in Hegel we read about *Entwickelung*; but of *Evolution* he does not speak in so friendly a tone. "The two forms in which the series of stages in nature have been apprehended are Evolution and Emanation" (*Naturphil.*, p. 34). By the first, he explains, is meant the process from the less perfect to the more perfect; by the second the process from the more perfect to the less perfect. Of the two he prefers the conception of Emanation, because it explains the lower from the point of view of the higher; whereas Evolution carries one back "into the darkness of the past," and only gives us a series of stages following one another in time. "The time-difference has no interest whatever for thought" (p. 33). This is undoubtedly a hard saying. The man who can prefer the Oriental conception of Emanation to the modern scientific conception of Evolution might seem to be more fit to be expounded by the Theosophical Society than to be seriously considered by the contemporaries of Mr. Herbert Spencer. "We must interpret the more developed by the less developed," says Mr. Spencer (*Data of Ethics*, p. 7); and at least ninety-nine out of every hundred scientific students would cry "Amen." But is this what they are themselves doing? They tell us about the less developed organisms or societies (or whatever may

be the subject of investigation), and then they go on to tell us about the more developed. But are they really interpreting the higher by the lower? Let us listen to another philosopher who approached philosophy from the side of biology. In his *Study of Psychology* G. H. Lewes writes as follows:—"Once recognising the necessity of observing the sentient activities of men and of animals, and of interpreting these by reference to their organic conditions, what more natural suggestion than that our study should begin with animals? The comparative simplicity of their organisms and their manifestations would seem to mark them as furnishing the safest prolegomena to Human Psychology. I have already stated (in the preface to *Problems of Life and Mind*) that in 1860 I was led to collect materials with this view, but that fuller consideration showed it to be impracticable. To show why it was impracticable will be an answer to my Russian critic, M. Wyruboff, who objects to my 'sin against scientific method' in not proceeding from phenomena that are general and simple to those that are special and complex; I ought, he thinks, to have made the exposition of the simpler cerebral phenomena in animals precede that of the more complex phenomena in man. This was my own opinion till experience proved its mistake. I found myself constantly thwarted by the fallacies of anthropomorphic interpretation. It was impossible, even approximately, to eliminate these before a clear outline of the specially human elements was secured," &c. (pp. 118, 119). Farther on he says: "It is clear that we should never rightly understand vital phenomena were we to begin our study of Life by contemplating its simplest manifestations in the animal series; we can only understand the Amœba and the Polype by a light reflected from the study of Man" (p. 122). What makes it seem possible for the scientific investigator "to begin at the beginning" is the fact that he is not doing so. The student of the Amœba happens to be, not an Amœba, but a specimen of a highly developed vertebrate, and knows at least something about the differentiated organs and functions of his own body. Professor Freeman "explains" the English Constitution by quoting Tacitus about the Germans and by describing the Landesgemeinden of Uri and Appenzell, &c., &c.: but then we all know something about our present constitution. Even Professor Freeman, however much he may dislike "Modern" History, cannot help living and thinking in a very modern period.

Now this I take to be the element of truth in Hegel's preference for Emanation over Evolution. We only understand a part of anything when we can look at it as the part of a whole, and we only understand the elementary stages when we know them as the elementary stages of something more highly developed. This is true

in each special branch of knowledge, and it is true in the attempt to think the universe as a whole.

Hegel's "development" (*Entwickelung*) is not a time-process, but a thought-process; yet Hegel's method of exposition is such that the thought-process is apt to be read as if were meant to be a time-process. To avoid misunderstanding him we must, as has been said, "read Hegel backwards." "He presents everything synthetically," says Professor Seth (*Hegelianism and Personality*, p. 90), "though it must first have been got analytically by an ordinary process of reflection upon the facts which are the common property of every thinker." There has been much innocent laughter over Hegel's absurdity in saying that Being is the same thing as Nothing, and that Being and Nothing between them produced Becoming. But, if we take the conception of "Becoming" and analyse it, we find that it does imply both Being and Not-being. That which becomes is that which was not but now is. The Eleatics were puzzled by the conception of Motion, just because they were trying to think the whole of reality under the category of Being, and did not see that Not-being was involved as well. So, on the other hand, the Heracleiteans seemed to make everything slip away in a flux, because they took the category of Becoming as ultimate and did not recognise that it implied the category of Being. The beginning of Hegel's *Logic* is, among other things, a memorandum of Plato's solution of these old controversies.

So again, if we are told that Identity passes over into Difference, and that the two produce Likeness and Unlikeness (I am not attempting to follow the minutiae of Hegel's statement here), we shall see the point of this better by taking the concept of Likeness and asking what it implies—a question that is by no means superfluous, for English philosophy has tended to take the category of similarity as if it were ultimate. Thus J. S. Mill says, "Likeness and unlikeness cannot be resolved into anything else" (*Logic*, i., p. 75). Hume, in his *Treatise of Human Nature*, resolves "identity" into "resemblance." "This propensity," he says, "to bestow an identity on our resembling perceptions produces the fiction of a continued existence" (p. 209, edit. Selby-Bigge). In treating of the Laws of Association, Mr. Spencer aims at reducing contiguity to similarity (*Principles of Psychology*, § 120, vol. i., p. 267). Mr. Bosanquet has pointed out that, "Mr. Spencer is more of an atomist than anyone else has ever been, for he says that the syllogism must have four terms, i.e., the middle term is not identical in its two relations, but only similar" (*Essays and Addresses*, p. 167). Mr. Bosanquet is working out the subject from the other side, attacking the delusion of English philosophers that identity necessarily excludes difference. It is

because of their abstract conception of identity that some of them have been led on to the attempt of getting rid of identity altogether in psychology and logic.

If, then, we read Hegel backwards, we find that his logic and the whole of his philosophy consist in this perpetual "criticism of categories," *i.e.*, in an analysis of the terms and concepts which ordinary thinking and the various special sciences use as current coin without testing their real value. But the results of this "criticism of categories" Hegel arranges so as to present the appearance of a completed system; the self-development of thought from the simplest to the most complex stages; the less adequate conceptions showing their imperfections, and so, by criticising themselves, as it were, leading us on to the more adequate, fuller, and "truer" ways of thinking. This is Hegel's manner of satisfying the demand for "completely unified knowledge." But because of this method of exposition he is peculiarly liable to be misunderstood and misrepresented. The tendency to mistake a thought-process for a time-process arises from our desire to substitute the easier form of picture-thinking for the more difficult effort of grasping the separate elements in their totality. And it is a tendency which may mislead even philosophers themselves and still more their followers. Thus Aristotle carefully defines the logical term as that "into which the proposition is resolved" (*eis ὃν ἀταλύεται ἡ πρότασις*). But when "terms" come to be treated of as the first part of logic, then the temptation is to explain the proposition as arising out of a combination of terms. So, again, when the process of inference has been analysed into premises and conclusion, the premises come to be regarded as if they existed first in time, and as if the conclusion was afterwards tacked on to them—a piece of picture-thinking which has exposed to unmerited attack the Aristotelian analysis of reasoning. So, too, because we can think of society as recognising certain rights in its members, the individuals with their rights come to be pictured as existing prior to the formation of society, in an imaginary state of nature. To take an example from another region—Space is analysed into its three dimensions; then the geometrician, for method's sake, treats of two dimensions first and afterwards goes on to treat of three dimensions. And so some people fancy that you can go on to spaces of four, five, or any number of dimensions; whereas there is, as a matter of fact, no "going on" at all—Space of one or of two dimensions with which we are supposed to start is an abstraction from the only real space.

Why, it may be asked, did Hegel adopt this treacherous mode of exposition? Two reasons may be given. In the first place, he was influenced, as we have seen, by the Neoplatonic idea of Emanation;

but there is this all-important difference between Hegel and the Neoplatonists, that he gets beyond the idea of differentiation as mere loss or evil, and sees in it a necessary step in the movement to a higher unity. Thus the idea of Emanation in his hands passes over into the idea of development from the abstract to the concrete. But, in the second place, this development or thought-process does show itself as a time-process. Hegel's remark in the *Naturphilosophie* (p. 33) must not be taken to mean anything more than that a *mere* after-one-another in time is of no philosophical or scientific interest; thus, e.g., the scientific historian will not write mere annals. Annals are the materials for history, and are not yet history. Above all in the history of philosophy does the connection between the thought-process and the time-process come to the surface. The history of philosophy gave Hegel his clue to the logical development of the categories. The simpler and more abstract categories come first in time in the process by which the human consciousness becomes gradually aware of the conceptions underlying ordinary thought and language. In the history of philosophy we have a development from the simpler to the more complex, like that which Evolutionists see in the physical universe. Professor Wallace has well compared Hegel's discovery of the self-development of thought by means of the clue given him in the history of philosophy to Darwin's discovery of the process of evolution in the organic world by the help of the clue given him by "artificial selection." "Philosophy," says Professor Wallace, "is to the general growth of intelligence what artificial breeding is to the variation of species under natural conditions" (*The Logic of Hegel, Prolegomena*, p. cx).

I should quite agree with Prof. Seth (*Hegelianism and Personality*, p. 170) that Hegel's greatest strength lies just in his interpretation of history—i.e., of the process of human evolution in all its departments. But Prof. Seth blames Hegel for transferring to the development in time the thought-process described in the *Logic*, without any justification except the ambiguity in the word "development" (p. 159). I have just tried to show that the history of philosophy itself is Hegel's justification for the transference; and I think that if he is to be blamed at all, it should rather be for stating the thought-process in the *Logic*, so that it looks like a time-process.

I suppose the belief still prevails about Hegel that he is an *a priori* metaphysician who spins theories out of his head regardless of facts. And this reproach is held to apply with special force to his Philosophy of Nature. What Hegel himself says is something very different. "Not only must philosophy be in harmony with experience, but empirical natural science is the presupposition and condition of the rise and formation of the philosophical science of

nature." The synthetic thinking of the philosopher must follow after and depend upon the results of the analytic process of scientific research. This being so, it must be remembered in respect of Hegel's *Philosophy of Nature*, that much of the natural science which supplied him with his material and his problems is now out of date; so that his *Philosophy of Nature* cannot have the same interest and value for us as his *Æsthetic*, or his *Philosophy of Religion*, or his *Philosophy of History*, though even in these departments we occasionally feel that the philosopher is working with somewhat antiquated materials, and not always dealing with what have come to be *our* chief problems. Secondly, Hegel's warmest admirers must admit that Hegel has his prejudices—patriotic prejudices in the main. His sympathy with Goethe's conception of nature was, on the whole, a beneficial influence; but it helped to make him unappreciative of Newton. And, thirdly, Hegel has less interest in nature than in the works of the human mind. He is undergoing the reaction against the deification of Nature, as something higher and better than man. "Vanini says that a straw is enough to reveal the being of God;" but, adds Hegel, "any idea of the mind, the poorest of its fancies, the play of its most accidental moods, every word is a more excellent reason for recognising the being of God than any single natural object whatever" (*Naturphilosophie*, p. 29). Again, "Even an arbitrary volition—nay, even a bad volition—is infinitely higher than the regular movements of the stars or than the innocence of the plants; for a wrong human volition is the error of a thinking spiritual being." (*Ib.*, p. 30.)*

Grant all this, it may be said, and what then is the use of bringing Hegel's name into connection with Darwin's? There might be some reason for considering his attitude to evolution as he saw it represented in the *Biologie* (1802-5) of Treviranus, and in the *Philosophie Zoologique* (1809) of Lamarck, and some reason, perhaps, for blaming him for his want of appreciation of the first beginnings of the great scientific revolution of this century. I think, however, it is worth while to see whether we can get any help, not from details in Hegel, but from his general method and spirit of philosophising, in making the attempt to *think* nature and human society as they present themselves to us now in the light of Darwin's theory of natural selection. Of evolution Hegel had heard—some-

* Cf. the passage near the beginning of the "Introduction" of the *Æsthetic*: "If we look at it *formally*—i.e., only considering in what way it exists, not what there is in it—even a silly fancy such as may pass through a man's head is *higher* than any product of Nature; for such a fancy must at least be characterised by intellectual being and by freedom." (Bosanquet's *Translation*, p. 3.)

what impatiently, perhaps—but not of natural selection. But neither had Treviranus nor Lamarck; neither had Mr. Herbert Spencer when he elaborated the groundwork of his system. Even in the fifth edition (1884) of *First Principles*, “natural selection” is only allowed to appear in a footnote, which footnote is intended to minimise the importance of Darwin’s discovery (p. 447). Now it is “natural selection” which seems to me the really epoch-making scientific theory; it is this that has produced that “change of categories” which, as Hegel says (*Naturphil.*, p. 19), is the essential thing in all revolutions, whether in the sciences or in human history. Evolution in the form in which Mr. Spencer, for instance, formulates it, is only a further carrying out of an idea which may be traced back to the Ionian hylicists; “natural selection” introduces a quite new method of looking at nature, and it has the further advantage of being, not a metaphysical speculation, but an undeniable fact.

What, then, is the effect of the theory of natural selection on Hegel’s philosophy? Hegel’s method of philosophising Nature could adjust itself quite easily to the new scientific theory. The factors which Darwin assumes for his theory are—Variation, Heredity, Struggle for Existence. Now are not Heredity and Variation just particular forms of the categories of Identity and Difference, whose union and interaction produce the actually existing kinds of living beings, *i.e.*, those determinate similarities and dissimilarities which constitute “species”? But this result—definite, clearly marked kinds, comes about through struggle, *i.e.*, through negation, the constant elimination of the less fit. Survival of the fittest, on Darwin’s theory, comes about only through the negative process of destruction. In the stage of mere Nature this negativity is mechanical and external. In the higher stage of consciousness (spirit) this negativity is self-determined, free—as I shall try to show later on.

This attempt at Hegelianising natural selection may seem fanciful. We know that Hegel’s formulae have been read into Shakespeare’s plays and into various inconsistent types of religious creed: and people become suspicious of formulae so very elastic. I think, however, my interpretation is valid so far as it goes, though it would not count for much except for reasons I now go on to consider.

There is one matter on which I think that most admirers of Hegel, unless they be of the very strictest orthodoxy, would allow that his view of Nature needs some correction. I mean his conception of “the Contingent” (*das Zufällige*). That infinite variety which is sometimes praised as “the freedom of Nature,” or even as “the divinity of Nature,” Hegel regards as not the glory but the

defect and impotency of Nature. (*Naturphil.*, p. 37; cf. the small *Logic*; *Werke* vi, pp. 288, 290; Wallace's *Translation*, pp. 227, 228). Thought has in nature gone out of itself into its "other"—its extreme opposite—irrationality. And that is why nature is like a wild Bacchantic god (*Naturphil.*, p. 24).

This conception of the "contingency" and "weakness" of nature is a survival in Hegel of the Platonic and Aristotelian conception of matter. In Plato's view the world in space and time must, just because it is in space and time, fall short of what its Artificer wished. So with Aristotle, "Chance" is an objective cause working in *rerum natura*, not a name for our ignorance. Professor Seth seems to hold that nature is illogical or non-rational, but that Hegel falls into a "most transparent fallacy" in saying that contingency is itself a category—a form of the Idea which "has no less than other forms of the Idea its due office in the world of objects." "To say that a thing is contingent or accidental," argues Professor Seth, "is to say in so many words, that we can give no rational account of why it is as it is, and not otherwise." (*Hegelianism and Personality*, p. 137.)

In this criticism I think that Professor Seth has approved of the more defective part of Hegel's statement, and has condemned the part in which Hegel shows most insight. Darwin's theory of natural selection seems to me, while helping as all modern science does to correct the despair of giving a rational account of what appears to us merely accidental, at the same time completely to justify Hegel in regarding this seeming non-rationality of nature as itself a form of the rational. The theory of natural selection presupposes (it is sometimes even made an objection to it that it does so presuppose) a tendency to variation in nature. There must be this for natural selection to work upon. Thus the non-rationality (indefinite variability) has its reason—in a sense in which that was never recognised before. Of course this tendency to variation is of itself a fact to be explained; and biologists feel themselves obliged now to face problems that might have been put aside as insoluble by scientific men in the days before this new conception of natural selection revolutionised their science.

Professor Seth asks: "What logical connection is there between the different qualities of things—between the smell of a rose, for example, and its shape; or between the taste of an orange and its colour?" This seems to me rather an unlucky question. We feel sure now that there must be some. The scent of flowers, the taste of fruits, their colours, shapes, &c., are not regarded now as "accidental" results of a fortuitous concourse of atoms or as the mere fancy work of a capricious maker, but as connected in some way

with the means through which the plant is reproduced, and the species aided in its competition with others by the insects which carry its pollen and the birds which carry its seeds. Thus, in some plants, successive adoption of self-fertilisation and insect-fertilisation can be read off from the complicated shape of the corolla.* I do not know whether the particular problems, suggested by Professor Seth, about the rose and the orange have been solved. But quite analogous problems have been, such as—Why do white flowers often give out their scent only by night?† Cats and red clover might seem to have no more logical connection than Tenterden Steeple and Goodwin Sands; but Mr. Darwin has shown how the flourishing of red clover depends on the flourishing of cats, who eat the field-mice, who eat the bumble bees, who fertilise the red clover.‡

What distinguishes Darwin's theory from other theories of evolution is the kind of explanation it gives. Hegel complains, and I think justly, that merely to go back "into the darkness of the past," or merely to say, "first there was the simple and then the complex was evolved out of it," and so on, is not to *explain* nature; it is only to give a chronological table of events—real or imaginary. We want to know "Why?" To refer us back to the homogeneous and undifferentiated is to give "the material cause" ($\tauὸ \epsilon\xi \sigma\bar{\nu}$) of what has happened: it is not to explain why what has happened has happened. But the theory of natural selection does explain "Why." Such a form or characteristic has been of advantage, of utility to the species, and therefore has favoured its continuance. Darwin restores "final causes" to their proper place in science—final causes in the Aristotelian, not in the Stoic or "Bridgewater Treatise," sense.§

"The Good" as a means of explanation thus regains the importance which Plato claimed for it. He makes Socrates complain that Anaxagoras, after asserting that Reason was the cause or principle of all things, went on to assign only "material" causes of things, whereas if we are to give a rational explanation we must do so by showing how the good was realised in the world (*Phædo*, 97, 98). Plato was too hastily trying to see everything in the light of the one supreme good—the end of the universe as a whole. And Aristotle's caution was not unnecessary—"the good for man is not

* Cf. A. R. Wallace, *Darwinism*, p. 331.

† *Ibid.*, p. 316. "White flowers are often fertilised by moths, and very frequently give out their scent only by night."

‡ Darwin, *Origin of Species*, pp. 57, 58.

§ Cf. Hegel's small *Logic*, Werke vi, pp. 378, 379; Wallace's *Transl.*, p. 239.

the same as the good for fishes" (*Eth. Nic.*, vi, 7, § 4). This conception of Final Causes, which the theory of Natural Selection restores, is not the cruder form of teleology which attempts to explain everything in the universe by showing that it serves the good of man. Each species has come to be what it is by pursuing (if we may speak metaphorically) its own good. Each individual is preserved by its own good. In the conflict between individuals and between kinds that which is better equipped for the particular struggle is selected. From many points of view, e.g., from ours—either as the species of human beings, or ours, as members of this or that society, or ours, as individuals—what happens may be very far from what we consider *our* good, yet it must be the better adapted for success which succeeds. This is a truism when stated thus: but from this it follows that the explanation of structures, habits, &c., must be found in the end or purpose that they serve. This substitution of Final Cause for Efficient or Material Cause as the more important category is as significant for us now as it seemed to be to Aristotle. And of all modern philosophers Hegel has recognised most fully this significance of the conception of End. On this head even his critic, Professor Seth, allows that he represents "what is profoundest and best in modern philosophy" (*Hegelianism and Personality*, p. 83).

Let me trace some consequences of the theory of natural selection in Ethics—where the applications of it are perhaps the most interesting to us. In Ethics the theory of natural selection has vindicated all that has proved most permanently valuable in Utilitarianism, while correcting those parts of the theory which made the negative work of the Intuitionist critic very easy. Right and wrong appear now as what help or hinder the good of the society—whatever the society may be. The happiness of the individual, as Professor Clifford pointed out (*Lectures and Essays*, ii, p. 173), is of no use to the community, except in so far as it makes him a more efficient citizen. Thus ethics is again, as to Aristotle and to Hegel, closely bound up with politics. The ethical end for the individual must be a social end—a common good (whatever the community may be).

Natural selection (as I have tried to show more fully elsewhere*) is a perfectly adequate cause to account for the rise of morality—in that same sense of "cause" in which we use the term in scientific explanations of natural phenomena. Regarded as events in time, the appearance of consciousness and the capacity for language with

* Art. on "Natural Selection and the Spiritual World," in *Westminster Review*, May, 1890, reprinted in 2nd edit. of *Darwinism and Politics* (1891). See esp. pp. 90–106.

the consequent possibility of storing up the results of experience, may be accounted for by natural selection, i.e., they favoured in the struggle for existence those species which happened to possess them. The facts of consciousness, of reflection, of self-consciousness, however, make an enormous difference in the character of this struggle. Natural selection in its lower stages—those with which the naturalist is familiar—works solely by the destruction of the less favourably circumstanced organisms and species. Natural selection among “articulate-speaking” thinking mortals, who can “look before and after,” works in other ways as well. Morality, to begin with, means those feelings and acts and habits which are advantageous to the welfare of the community. Morality comes to mean the conscious and deliberate adoption of those feelings and acts and habits which are advantageous to the welfare of the community; and reflection makes it possible to alter the conception of what the community is, whose welfare is to be considered. In human history, except where there has been retrogression, we find an advance in the ideals of life, i.e., man has been coming to a fuller and fuller consciousness of the end or good at which from the first, merely as a social animal, he has been blindly striving. It is worth while referring to retrogressions, because such cases show us to what an extent morality and all other differences between man and the animals, between the highest and the lowest races of human beings, are due to the influence of social institutions and not to any original, innate, or inherited instincts. Long centuries of civilisation do not prevent mankind from reverting to a condition not far from that of the lowest races, where circumstances, such as a terrible pestilence, long-continued warfare, a barbarian invasion or life among savages, have removed the ordinary restraints of civilisation. Still these are exceptional conditions. What may appear to be a general breakdown and return to barbarism may be the transition to a new and, in some respects, higher type of social organisation. For in human evolution we are forcibly reminded that progress does not go on in a straight line; but, just because thought enters into the process, at each step there is an attempt to correct the one-sidedness of the preceding stage. In the history of philosophy this “dialectic movement” comes clearly to the surface. The philosopher who is not a mere echo of what has become a dogmatic system is driven, by reflection on the prevalent manner of thinking, to lay stress on the aspects of truth which have been neglected. But the criticism he applies to his predecessors must in due time be applied to him. The great constructive philosophers seem indeed to gather up into their thought all the elements that existed scattered in preceding systems; but the time comes when a new criticism and then a new reconstruction are needed, if philosophy

is to remain living and not to be fossilised in a traditional dogma. "Let us follow whithersoever the argument leads us;" and, if we do not let ourselves become "misologists," we must hold fast this Athenian faith in the value of the perpetual conflict of ideas, which is the highest form of the struggle for existence. But what comes out clearly, and with some consciousness on the part of those concerned, in the history of philosophy is also going on in all other parts of human evolution. If natural selection operated among human beings exactly as in the lower organic world, there would be no advance except by the destruction of all the individuals composing an unsuccessful form of social organism. In the lower stages of human history that must have happened often enough. In the higher stages the organism may change without the members of it being destroyed; the race (the merely *natural* element) is not inseparably linked to the fate of all its institutions, its language, religion, form of government, &c. A vigorous race may live through many political and social institutions; on the other hand, successful institutions may become the possession of many races. Now in the history of civilisation generally we can see, though not in every respect so clearly as in the history of philosophy, this criticism of customs and ideas going on. Revolutions, peaceable or otherwise, are the transitions from one stage to another, provoking generally a counter-revolution, but in progressive societies, helping the forward movement through whatever apparently zigzag courses. Mr. Herbert Spencer thinks that the movement of human progress is all in one direction—from status to contract. Any attempts to get rid of some of the anarchy of individualism he can only interpret as a return to militancy. A follower of Hegel would agree with the average man that it is no such thing. We are not returning to the Middle Ages, but advancing to a new stage which shall reconcile both elements. Of course this new stage will not be final—though we are always apt to look on the stage just ahead of us as if it were final, because it is what to us seems most needed. Defects, one-sidedness in it, will show themselves and need correction, perhaps at first by opposite exaggerations. The correction may take place more and more through peaceful debate, instead of through fighting. A still higher stage would be reached when people themselves made the correction instead of leaving it to a rival party to do so: the dialectic movement may go on within the soul.

This seems to me a type of interpretation of human evolution which is in entire accordance with Darwin's theory of natural selection, and which yet admits of what is most valuable in Hegel's dialectic method. The analysis of the conception of punishment in Mr. Alexander's *Moral Order and Progress* (pp. 327-333) seems to me

a most admirable example of such a reconciliation of Darwinian and Hegelian evolution. "Punishment in man," says Mr. Alexander, "corresponds to the struggle of the dominant variety with other varieties. . . . We punish in order to extirpate ideals which offend the dominant or general ideal. But in nature, conflict means the extinction of individual animals; in punishment it is sufficient that the false ideal is extinguished, and it is not necessary always that the person himself should be destroyed."

Punishment, as Mr. Alexander puts it in summing up, has three characters: "It is retributive in so far as it falls under the general law that resistance to the dominant type recoils upon the resistant or guilty creature: it is preventive in so far as, being a statutory enactment, it aims at securing the maintenance of the law irrespective of the individual's character. But this latter characteristic is secondary, and the former is comprehended under the third idea, that of reformation, which is the superior form under which retribution appears when the type is a mental ideal and is effected by conscious persons." This account of Punishment is Darwinian in its application of the concept of natural selection. It is Hegelian in its recognition of the diverse elements that enter into the idea of punishment, unlike the rival one-sided theories on the subject; and it is Hegelian above all in its recognition that what seem the extreme opposite theories of retribution and reformation are, after all, different stages of the same concept.

Hegel's treatment of ethical questions agrees with that of the evolutionists in two main respects—both of which have been made grounds of objection to his philosophy. (1) The complete separation, which Kantian ethics and the ethics of the Intuitionist school make between "ought" and "is," tends to disappear. Hegel protests vigorously against the philosophical weakness of Fichte's perpetual *Sollen*, and seems to take up an almost "Philistine" attitude towards the enthusiasm of the romantic dreamer or of the reformer indignant with the abuses of society. Similarly we know that a very general consequence of the evolutionary and historical view of society has been to aid the reaction against the revolutionary appeal to "natural rights," and to support a political and social conservatism of the type so brilliantly illustrated in this country by Burke. And in Ethics the evolutionary moralists tend to do away with the distinction between moral laws and laws of nature, to treat moral action as not distinct in kind from action in general. (2) Hegel's ethics are a part of his "Philosophy of Law"; the familiar separations between politics and ethics, between society and the individual, appear only as aspects of what cannot properly be thought of apart from each other. So, too, ethics to the evolutionist is a branch of sociology. And to both

Hegel and the evolutionist the reproach is sometimes made that they ignore the significance of personality.

Now, first, as to Hegel's too passive acquiescence in fact, let me admit, once for all, that that is the great flaw in his practical philosophy. All wisdom seemed to culminate in Hegel's *Encyclopædia*, all history in the Prussian bureaucracy of 1820; and Hegel's orthodox disciples were ready to weep that there remained no more realms for the world-spirit to conquer. But this "finality" is an inconsistency in Hegel's application of his philosophy. The same dialectic movement which had brought the human spirit to the stage at which Hegel found it and interpreted it must urge it onwards. Yet Hegel's error is only the exaggeration of his perfectly sound feeling that the philosopher as such has only to do with what has already come into existence—the same sound feeling which, as I have already shown, makes him insist that the philosophy of nature must follow and cannot anticipate the course of the physical sciences. Hegel's famous dictum "The Real is the Rational," has been a stumbling-block to many, in spite of what he himself says in explanation of it (in the Introduction to the *Encyclopædia*). Mere existence is a very different thing from reality. Professor Seth (*Hegelianism and Personality*, p. 203) treats this distinction as a "quibble" on Hegel's part. Surely it is a perfectly legitimate use of that fatally ambiguous word "real." The use of "real" in antithesis to "sham" is common enough; and, as a matter of fact, it is more of a quibble, when those who boast themselves "Realists" in philosophy take advantage of this popular *moral* connotation of the term "real" to claim support for themselves in their polemic against Idealism, when e.g. they tell us that an atom is something more real than a thought. This is true in the sense that the atom must be thought of as being in space; but the ordinary mind takes it as if it meant that the atom is more important. That "the real is the rational" is a doctrine which is implied in, and may be well illustrated by, the theory of natural selection. All sorts of variations occur, i.e. they exist; but only those that prove to be of some value persist. Whatever maintains itself must do so because of some rationality that it has or had. When the rationality ceases, we have an appearance and not a reality, a sham that is doomed to perish. This, as we know, is the one lesson that Carlyle read in history.

Hegel's temperament and his circumstances led him to lay less stress on the converse of his proposition: "The Rational is the Real." It does not matter how few hold an opinion now, if their opinion is what makes for the greater well-being of society, they have got "the root of the matter" in them, and their opinion will

ultimately prevail. The Idea, as Hegel himself would say, cannot remain a mere "ought to be," it must make itself real. It may take a long time; but time is indifferent to it. Similarly, the evolutionist is apt to decry all attempts to better the world. He knows that all institutions, practices, &c., that have established themselves must have done so because of some value they had (some rationality); but, occupied as he is in studying past and existing forms, he is apt not to see the promise in new variations. Of course of these new variations (*i.e.*, new ideals, new projects, &c.) a great many will fail. Even a man of inventive genius may make a lot of "unreal" inventions. It needs a sort of prophetic intuition to see what makes for welfare in the future. But on the principle of natural selection, whatever institution or type of conduct ceases to serve the well-being of society, is doomed to perish by the working of those same forces of struggle which at one time gave it reality and predominance. Whether it perishes, dragging with it the happiness and the lives of human beings or not, will depend on whether it perishes by the mere natural struggle, or is peaceably set aside by the conscious act of the reformer anticipating on behalf of his society and obviating the cruel process of mere natural selection.

Hegel's philosophic endeavour to see the rationality of all established institutions has sometimes been condemned as an unreasoning optimism. But we have seen that he does *not* mean that, "Whatever is, is right." And his optimism is no more than that faith in the ultimate rationality of the universe, which is the presupposition (however unexpressed or unrecognised) of all scientific interpretation and of all practical effort.

To come to the second great objection made to Hegel—Professor Seth complains (and with widespread sympathy) that in Hegel's system there "is room only for one Self-consciousness: finite selves are wiped out, and nature, deprived of any life of its own, becomes, as it were, the still mirror in which the one Self-consciousness contemplates itself" (*Hegelianism and Personality*, p. 162). The individual is supposed to be a fatal objection to Hegel's system; he will get in the way of it and throw it off the rails. But, perhaps, we may recall George Stephenson's answer to the objection about the cow getting in the way of the steam-engine: "It would be very awkward for the coo." And this conception of the abstract individual—the favourite *idolon* of popular philosophy—is destroyed by the logic of Idealism, whether in the region of Metaphysics or of Ethics. Of course each of us, if we had been making the universe, might have made his own individual self the centre of it; but logic teaches us that we cannot think the universe rightly from our individual point of view, and life teaches us that we must not live it from our individual

point of view. If we try to do so, to any very great extent, our neighbours may be obliged to shut us up in an asylum or to hang us, in the interest of something that is greater than the individual self. And so we find that the *real* individual is not the individual in isolation from and in distinction from all other individuals, but is a synthesis of the universal and particular self.

The scientific study of nature shows us that not only is nature "careless of the single life," but that even the type or species is transitory, that the infinite diversity of kinds and individuals does not exclude the essential unity of nature. And thus the modern man of science, if he takes to philosophy, is generally able to appreciate Spinoza. Hegel, however, has risen above the category of substance. Self-consciousness is to him the highest category, and, as Professor Seth admits (p. 89), is "our best key to the ultimate nature of existence as a whole." But what is this "Self-consciousness"? Is it God, or is it the individual self, or is it a mere abstract universal? Is the critic, who asks these questions, quite sure what he means by "God," and by "the individual self," and that what he means by these terms represents an intelligible reality, and not merely the picture-thinking of ordinary beliefs? Is it not, at least, a hypothesis worth taking account of, that in our consciousness of self we have the clearest manifestation of the unity which science presupposes in the universe? Hegel admits—in perfect accord with the most materialistic science—that spirit comes *from* nature; nature is the potentiality of spirit. But, if we take this conception of potentiality quite seriously, will it not be nearer the whole truth to say, with Hegel, that spirit, being out of itself, estranged from itself in nature, comes to itself in human consciousness? The separateness and isolation of one self-conscious being from another is only a necessary consequence of the manifestation of spirit in space and time. It is the negativity which makes the manifestation possible. But the "truth" of our separate selfhoods is only to be found in our ultimate unity, which religion calls "God," which ethics calls "goodness"—a unity which is not the abstract "One" of the Neoplatonist, but an organic unity realised in a society which is not a mere aggregate of individuals, but a spiritual body animated by that love which is the highest religious conception of Deity.

Let me recall what I said before about the concept of "Final Cause," or "the Good." Might not a philosophical theology substitute this concept for that of "First Cause"? I shall not enquire how far the consequences might be favourable to orthodoxy (of any particular species) or not; but at least such a theology would be more in accordance with a truly ethical religion.

Hegel's critics are puzzled by what seems the union of mystical

theology with "the crudest materialism." Regard his system in its general outlines (I am not thinking of details or applications) as a great speculative hypothesis—is it not a strong argument in favour of this hypothesis that it can at the same time accept without reserve the results of scientific discovery, however materialistic they may seem, and can yet explain, and to some extent justify, the speculations of those great religious thinkers who have attempted sincerely, but perhaps too boldly, to grasp in their thought of God the whole secret of the Universe? If we may judge by past experience, all attempts on the part of "Intuitionists" to meet Evolutionists on questions of "origins" are doomed to failure: one untenable position has to be surrendered after another. The Idealist makes no such attempt. He only insists that, after we have had as complete a history as can be given of how things have come to be what they are, we are justified in looking back from our vantage ground and seeing in the past evolution the gradual "unrolling" of the meaning that we only fully understand at the end of the process. The process is not completed; and therefore this attempt has to be renewed for each generation. But at every stage it is in the highest that we know that we must seek the key to the philosophical interpretation of nature and of man.

COMTE'S ANALYSIS OF THE HUMAN FACULTIES.

By BERNARD HOLLÄNDER.

BEFORE we examine Comte's Psychology it is necessary that we acquaint ourselves with his authority on the subject. Auguste Comte was a disciple of Dr. Gall, and to understand Comte we must first understand Gall.

If I say that Gall was the founder of cerebral physiology, if I say that he revolutionised human conceptions regarding mind, I may possibly, even at the present day, stand alone in holding that opinion. For Gall has suffered the same fate as Galileo and Harvey; only whereas we have come to recognise the discoveries of these, the recognition of Gall has not yet taken place, although, particularly during the past year, much has been done by scientists to do justice

to the illustrious name.* Gall's doctrines were unfortunately judged by the teachings of his disciples, and when at the end of his life-time he brought out his large work on the Brain and Nervous System, with plates showing the anatomy of the brain of an exactitude unknown before, he was already a condemned man, and his books were left unnoticed. Indeed, many of his laws regarding the connection between brain and mind have been re-discovered during the last ten or twenty years; on the other hand, much that is attributed to him, and does him no credit, he never wrote. Anterior to his teaching mind was viewed as an intangible entity or incorporeal essence. Its disorders were thought to be an incomprehensible affliction, and—some still hold the notion—that they were due to the presence of an evil spirit in the sufferer, or to the enslavement of the soul by sin, or to anything but the true cause—bodily disease. The brain was regarded merely as the source and centre of nervous influence, distributing the same, through the medium of the nerves, to the rest of the system. I am not alluding to the speculations of metaphysicians, but to the doctrines taught in the schools of anatomy and physiology. Gall examined man through his material organisation. He studied the Brain and Nervous System, and drew the inferences from the facts which he observed that the organic state is the correlate of the mental state, that the laws of heredity explain mental forms and innate ideas. He looked even at moral philosophy as a cerebral science. He compared the organisation of man with that of existing animals, traced a succession of the development of the brain and nervous system from the lowest type of animal life up to that which most closely approaches the human. Next he reminds us that even the human mind passes through stages in which it resembles lower organisms, and that we can fix no point of time at which distinctive human faculties awake. Thus he has actually taught a century ago what the most eminent writers on Mental Science have recognised only during the last few years. He wrote in 1790 that the highest development of brain-matter is found in the hemispheres, convolutions, or grey surface of the brain, which is the material base of all mental and moral activity. This portion of the brain, which he called the seat of the soul, he viewed not as a single organ, as has been the case up to the year 1870, but he argued that it consists of a number of thoroughly differentiated organs, each one of which possesses certain functions, yet is in the closest

* See *Croonian Lectures* before the College of Physicians, by Dr. Ferrier; *Journal of the Anthropological Institute* of August, 1889, and February, 1891; *Journal of Mental Science*, January, 1890; *Saturday Review* on the revival of Gall's Doctrines, April 26th, 1890, &c.

possible connection with all the others. He even attempted to define a number of these organs, to determine their structure and individual energy, and to trace the physiological and pathological alterations which they undergo during the natural process of development, maturity, and decay, and in diseases to which they are subject. While this part of his doctrine is the one which has been most violently opposed, the discoveries which have been made in experimental physiology have actually confirmed several localisations which Dr. Gall made. On the whole, so much difference of opinion exists among the experimental physiologists of the various countries that I shall be more accurate in saying that this is a problem which has yet to be solved. It is the greatest problem for the anatomy and physiology of the twentieth century, and one which, when it is solved, will cause a revolution in psychology.

Without an attempt to verify or disprove Gall's statements by observation his whole doctrine was at once rejected, and he, the patient, unwearied, and sincere student of nature was stigmatised as a quack by men who had never even looked at a brain, with a view to discover the relation it might bear to the mental manifestations. An eminent critic of his time, Mr. Jefferey (afterwards Lord Jefferey), Editor of the *Edinburgh Review*, then wrote, "that there is not the smallest reason for supposing that the mind ever operates through the agency of any material organ." Gall was unmercifully ridiculed and abused by the physiologists and philosophers of his time. Orthodox science has never tolerated, and will not tolerate, scientific heretics. It cannot burn, but it can excommunicate them. Scientists in this respect are as bad as the priests of the olden times. How cruel was the fate of Dr. Elliotson, one of the most eminent physicians of his time, who suffered for the advocacy of what is now known and recognised as the study of Hypnotism! Though Dr. Gall's doctrine treats of matters not lying on the surface, and where a personal knowledge and conviction of the truth can only be obtained with laborious study and observation, and though the opposition to his doctrine was a powerful one, he had his followers. Unfortunately, these had neither his genius nor his character, they even lost sight of his method. Their faults delayed the recognition of Gall still more. There were some, however, who have done good work. Of these there are several eminent French physicians—Voisin, Broussais, Bouillaud. Broca, though not a disciple of Gall, wrote in his defence; and, indeed, he could not have done otherwise, for one of the greatest discoveries of Gall—the brain-centre for the articulation of speech—was established by the additional evidence of Dr. Broca. Among the philosophers we have Auguste Comte.

Among the English writers who have at one time defended Gall

is Mr. Herbert Spencer. He, however, was ultimately too much influenced by public opinion, and while he continued to defend the principles which lie at the base of Gall's doctrine he made no mention of the name. His contributions to the *Zoist*, a journal of cerebral physiology, vol. i. and ii., showed that he followed Gall's footsteps, but could not agree with the other followers, whom he criticises severely, later on, in the *Principles of Psychology* for having taken no notice of his contributions to the subject. He says: "The crudity of their philosophy is such as may well make men who to some extent agree with them refrain from avowal of their agreement, more especially when they are met by so great an unwillingness to listen to any criticisms on the detailed scheme rashly promulgated as finally settled." There can be no doubt that the failure of Gall's doctrine is due to a great extent to the premature introduction of speculative reasoning, by the earlier disciples of Gall, into the exposition of that which had been really determined. In the proceeding of Gall, facts in large amount, indiscriminately obtained, were constantly amassed ere he would entertain a suggestion, and only after observations had accumulated extensively would he venture to pronounce that any proposition was made out. (See on this point Sir John Forbes' extensive review of Gall's works in the *British and Foreign Medical Review*, vol. ix.) Let me give an illustration of my statement. Gall observed that persons endowed with a talent for facial mimicry had a portion of brain corresponding to what is now termed the latter half of the second frontal convolution prominently developed, as, for instance, in renowned actors; idiots, too, show often this capacity for imitating gestures, and of them it cannot be said that the faculty is acquired. Gall also observed disturbances in the movements of facial muscles, and traced them to this region. He marked the centre of the greatest activity with the figure XXV, and called this area the "organ of mimicry." He did not say "mimicry" is a function of this area, nor did he draw any other deduction whatsoever. He simply stated the fact which he had observed. Now, argument is possible regarding the term applied to this region, but the fact itself is corroborated by Dr. Exner, of Vienna, and Dr. Ferrier, who both traced paralysis of the facial muscles to disease of this brain-area. But how were they to know of Gall's previous discovery? Gall's disciples have drawn an imaginary outline round this region, and termed it "organ of imitation." They do not quote Gall, they give no proofs for their localisation. Some of my critics have asserted that I wish to elevate Gall at the expense of his disciples, but I am not the first one who wishes to do so. Sir John Forbes, Dr. Engleue, and Dr. Elliotson have done the same. The latter, in his *Human Physiology*, shows

the injustice of Dr. Spurzheim towards Gall: "His gross attempts to share with Gall discoveries in which he had no participation, and to make it appear that he rendered systematic and philosophical what had been in Gall's hands rude and detached facts." . . . "Spurzheim was the 'hand' man of the 'head' man." . . . "After reading some of Dr. Spurzheim's first English work, published on his arrival in England, Gall gave the book with disgust, but half cut, to Dr. Fossati, and knew nothing more of Dr. Spurzheim's sayings and writings afterwards than what was pointed out to him; and it was with the greatest difficulty that he could be prevailed upon to take any notice, even for a moment, of what was pointed out to him."

It was Dr. Spurzheim who introduced that unfortunate title of "Phrenology," and made a system of the facts which Gall had collected regarding the functions of the brain. Gall has at no time made use of that term. He seldom went beyond stating his observations. Thus he says, that he observed a particular brain-area excessively developed or diseased in men who were subject to hallucinations and visions. He could not tell how the necessary excitement of the perceptive organs is produced, nor give any other explanation. Neither could his followers. Nevertheless, they gave this brain-area a function of "Wonder." Against such arbitrary and unscientific proceeding, Mr. Spencer objected in one of his contributions to the *Zoist* entitled: "A theory concerning the organ of wonder," in which he changes the name of "wonder" to "reviviscence," and supposes this faculty to be the chief agent of imagination. His own words are:—

"The reader will at once see that the liability to be deceived by spectral appearances, must, other things being the same, vary as the power of the proposed faculty. The more efficient the instrument, for the revivification of impressions, the more nearly will the images produced approach in appearance the realities. Celebrated painters have possessed the power of calling up objects so distinctly before the mind's eye as to render the process of depicting them little more than copying from Nature. If then the faculty be capable of effecting so much under the influence of its ordinary stimulus, we may reasonably assume that its unnatural actions will be accompanied by a difficulty in distinguishing revived impressions from real perceptions. Numerous cases of mental illusions from a slightly disordered state of the brain might be quoted. Similarly may be explained the mental action that gives rise to the seeing of ghosts and apparitions. During the gloom of night, and under the influence of appropriate feeling, every dimly-distinguished object calls up in the mind some pre-existing impression to which it may chance to

bear a faint resemblance, and amid the excitement resulting from extreme fear, the mental image is rendered so vivid as to be mistaken for the thing seen. Persons will of course be subject to such illusions in the ratio of their endowment of the faculty of Reviviscence. . . . Reviviscence creates mental imagery, love of ghost stories, witchcraft, affording scope for imagination. It has been maintained that Reviviscence is the parent of imagination—that imagination is but a revival and putting together of impressions previously received by the perceptive faculties, and that upon the efficiency of the reviving agent must mainly depend the vividness of ideal images. Poets, therefore, who are in a great measure distinguished by their powers of imagination may be naturally expected to possess a large endowment of Reviviscence. That such is the fact may be seen by reference to the heads of Milton, Shakespeare, Spenser, Dryden, Beaumont and Fletcher (dramatists), Drummond, G. Buchanan, Otway, Maleherbe, Tasso, Young, Bunyan (Bunyan was a true poet, philosophically speaking, though not conventionally recognised as such), Cowper, Darwin, Scott, Byron, Wordsworth, and Hogg. In all of them the organ is large, in some very large. The names of other poets might doubtless have been added to the list had likenesses of them been attainable. . . . Further evidence is deducible from the fact that so many men of powerful memory, or brilliant imagination, have been subject to mental illusions. Tasso held conversation with a spirit gliding on a sunbeam, Malebranche heard the voice of God distinctly within him. Pascal often started from his chair at the appearance of a fiery gulf opening by his side. Luther conversed with demons. Descartes was followed by an invisible person calling upon him to pursue the search of truth. Swedenborg describes heaven and hell. Benvenuto Cellini was accustomed to behold a resplendent light hovering over his own shadow. Dante talked with spirits, and Cowper was haunted with spiritual sounds. Inasmuch as these cases favour the conclusion, that the power of reviving impressions, either as manifested in memory or imagination, frequently co-exists with the liability to spectral illusions, they give collateral support to the proposed theory, for they show that these several traits emanate from the same peculiarity of organisation."

Mr. Herbert Spencer's theory, then, amounts to this—given in his own words :—

"That the faculty entitled 'Wonder' by the Phrenologists has for its ultimate function the revival of all intellectual impressions, that it is the chief agent of imagination, and that it affords a tangible explanation of mental illusions, either when due to disordered states of the brain, or to unusual excitement."

Curiously to observe, modern scientific researches seem to confirm Mr. Spencer's assertions. For the situation of "Wonder" or "Reviviscence" corresponds with Dr. Ferrier's brain-area marked (12)—the excitation of which causes the eyes to open widely, the pupils to dilate with movements of the eyeballs and head. "It gives the appearance of attention, and the movements indicated are essential to the revivification of ideas." Dr. Ferrier's words are :—

"Just as the initiation or partial excitation of any particular movement reacts back upon the sensory cohesions with which it is associated, so the movements of the head and eyes react back on the centres of vision, and keep the ideal object in the field of clear consciousness, and through this recall its various sensory and motor associations. It is not essential that the object revived in idea should be so clearly revived in the visual field as the actual object itself. There are great differences in this respect among different individuals."

Thus Dr. Ferrier acknowledges that his centre for the volitional control of head and eyes is the physical means for the revivification of ideas, and confirms Mr. Herbert Spencer's observation and localisation of the faculties of "Reviviscence," foreshadowed by Gall.

Who knows what influence Gall exerted, directly or indirectly, on Mr. Herbert Spencer? It seems to me impossible for any man, however great his genius, to write a work like the *Principles of Psychology*, without relying at least to some extent on the legacies of the past. True, Mr. Spencer made no mention of Gall's name, but he does not on any occasion give references to or make quotations from authors who have preceded him. At the time of the publication of this book, we must not forget, there was not a single authority in favour of the plurality of functions of the brain, except Gall's followers; the two authorities, whom Mr. Spencer mentions in his defence against supposed similarities between his writings and those of Comte—Sir William Hamilton and Flourens—wrote the reverse of what he advocated.

The former, in his *Lectures on Metaphysics* (page 264) says :—

"No assistance is afforded to mental philosophy by the examination of the nervous system, and doctrine or doctrines founded on the supposed parallelism of brain and mind are, as far as observation extends, wholly groundless."

Flourens, the supposed other teacher, held a similar view to Hamilton, and supported it in addition by experiments, which held good for half a century. It was not until 1870 that they were shown to have been wrongly conducted. Scientists relied on the evidence

furnished by Flourens when they condemned Gall, and his experiments seemed to show that the brain acts as a single organ, inasmuch as by slicing off various parts none of its functions seemed to be impaired. Yet, how is it, if Sir William Hamilton and Flourens were Mr. Spencer's authorities, that the latter wrote in the *Principles of Psychology*, on the question of plurality of the functions of the brain, as follows :—

“Whoever calmly considers the question cannot long resist the conviction that different parts of the cerebrum must in some way or other subserve different kinds of mental action. Localisation of function is the law of all organisation whatever, and it would be marvellous were there here an exception. If it be admitted that the cerebral hemispheres are the seats of the higher physical activities there are distinctions of time, which, though not definite, are yet practically recognisable; it cannot be denied, without going in direct opposition to established physiological principles, that these more or less distinct kinds of psychical activity must be carried on in more or less distinct parts of the cerebral hemispheres. To question this is to ignore the truths of nerve-physiology as well as those of physiology in general. It is proved experimentally that every bundle of nerve-fibres and every ganglion have special duty; and that each part of every such bundle and every such ganglion has a duty still more special. Can it be, then, that in the great hemispherical ganglia alone, this specialisation of duty does not hold? That there are no conspicuous divisions here is true; but it is also true in other cases where there are undeniable differences of function—instance the spinal cord or one of the great nerve bundles. Just as there are aggregated together in a sciatic nerve an immense number of fibres, each of which has a particular office referring to some one part of the leg, but all of which have for their joint duty the management of the leg as a whole, so in any one region of the cerebrum, each fibre may be concluded to have some particular office which, in common with the particular offices of the neighbouring fibres, is merged in some general office fulfilled by that region of the cerebrum. Any other hypothesis seems to me, on the face of it, untenable. Either there is some arrangement, some organisation, in the cerebrum, or there is none. If there is no organisation, the cerebrum is a chaotic mass of fibres, incapable of performing any orderly action. If there is some organisation, it must consist in that same physiological division of labour in which all organisation consists, and there is no division of labour, physiological or other, but what involves the concentration of special kinds of activity in special places.”

Thus Mr. Herbert Spencer advocated a view, forty or forty-five years

ago, which was then held only by Gall's followers in opposition to the majority of the great thinking men. Both Sir William Hamilton, and later John Stuart Mill, relied on the evidence furnished by Flourens in Paris, that mental phenomena do not admit of being deduced from the physiological laws of our nervous organisation. Even a physiologist so eminent as Dr. Carpenter relied on Flourens, and asserted that the cerebral hemispheres as the organs of thought "do not act in isolated portions, but as a whole;" but abandoned this view when he became acquainted with the results of experiments made after 1870. Yet the *Times*, not being acquainted with this change of opinion, credited him with the old view, which Dr. Carpenter had to contradict in a letter to the *Times*, September 27th, 1873.

This long account of the influence which Gall exerted on the minds of both physiologists and philosophers of our time was necessary in order to understand clearly what Comte has written on the subject. Auguste Comte is the originator of the law, that each branch of knowledge passes through three states: the theological, metaphysical, and the scientific or positive state. In no case could he apply this law more successfully than in that of Physiology. Gall has given him all the material to do so. His work on the Brain and Nervous System is a historical record of the progress made in physiology and positive psychology. Gall, from his point of view, and from the position which he occupied, was justified, or at all events had good reasons, to oppose Metaphysics. But Comte, we shall see, though he joined in the opposition, was less justified, for he has not followed Gall's inductive method, but indulged in speculations which were anything but "positive."

Comte, at the outset, acknowledges Gall as his authority, and gives him credit for his efforts to make Psychology a cerebral science.

"In entering on this great subject, I find it specially incumbent to render due justice to my principal guide. From the first origin of true biological science Gall attempted to bring the higher and more difficult problems within its range, and thus effectually to shatter the last link which chained Natural Philosophy to metaphysical and theological systems. And this bold project he realised to a degree beyond all that the most competent thinkers of his time had imagined possible. In a time when the attributes of human nature were narrowed down by all existing schools to mere intelligence, Gall boldly upheld in his own way the positive doctrine of the preponderance of the Heart over the Intellect, a truth indicated by the common instinct of mankind, but unknown as yet to science. He dissipated on the one hand the nebulous mental unity of psychologists and ideologists, by demonstrating the plurality of intellectual and

moral organs. And on the other hand, he removed the old biological error of attributing the higher functions to any but the cerebral apparatus. To appreciate the importance and the difficulty of this latter service we must remember that the passions were still referred to the vegetal viscera, not merely by Bichat, who never had the time to examine the subject with sufficient care, but even by Cabanis, who devoted such attention to it. At a time when naturalists by common consent were devoting their whole attention to dead animals, Gall took living actions, which he observed so admirably, as the foundation of his principal analysis of propensities and faculties."

But while Comte renders due justice to the philosophical part of Gall's work, he undervalues his physiological discoveries, forgetting that Gall was first collecting his facts regarding the connection between the organic state of parts of the brain and certain fundamental faculties, and then drawing his deductions from them. Comte accepts only the deductions and pays no attention to the facts. He is under the impression that Gall first analysed the human faculties and then tried to discover their connection with the brain. Besides, Comte, like Gall's English followers, gave his doctrines the appearance of a complete system, instead of proceeding on Gall's scientific basis, and ensuring first the foundation of the work. These philosophical additions have ruined the whole doctrine and justified Mr. Herbert Spencer's criticism. Comte works under the curious misapprehension that Gall's collection of physiological and pathological facts was only a didactic artifice to justify his analysis of the human faculties. In truth, Gall does not pretend to have discovered or enumerated all the faculties. "Probably," he says, "those who follow me in the career which I have opened, will discover some fundamental forces and some brain-organs which have escaped my researches." He furthermore acknowledges his inability to give in all cases the fundamental forces; even those which he thought fundamental, he admits may be found to be complex. "I know," says Gall, "it would have been more philosophical always to refer to their fundamental forces the qualities or faculties which I could detect in only their highest action; but I preferred leaving something for those who came after me to do, rather than give them an opportunity to disprove what I had prematurely advanced."

Comte tries to discover the fundamental faculties by a study of the human progress as a whole, that is, Sociology. By a progress of speculative reasoning he arrived at an analysis of the human faculties. He altered the classification ten times in three years, which makes one doubtful as to its positive foundation. But what shall we think of the founder of "the positive philosophy," when he proceeds by the same method of abstract reasoning to localise the

various faculties in different parts of the brain, without giving a single fact in support of his localisations. What is there to distinguish him from the metaphysicians, whom he criticises at great length.

According to Comte, Gall's system was a failure because constructed without the aid of Sociology, but his imperfect results made it possible to proceed at once to the universal science, for which this was the only preparatory step still wanting.

"As the founder of Sociology," he observes, "I owed this special acknowledgment to the biologist who has done more than any other to free my philosophy from every trace of Ontology as well as of Theology."

Physiology and Pathology he thinks incompetent to solve the problem of localisation of function.

"It was impossible to solve it prior to the study of Sociology. Before Gall's time the only functions which physiologists regarded as belonging to the Brain were those directly connected with the two elementary orders of external relations; that is to say, the passive function, Sensation; the active function, Motion. They misunderstood or left out of sight the intermediate processes whether of Thought or of Desire, which, following on Sensation and preceding Motion, form the necessary link. These operations were still supposed by many not to exist in animals, and in man they were partly explained by metaphysical abstractions, partly, and, more frequently, referred to the viscera. In a congeries of organs so intricate as the brain parts are more closely connected, nay more homogeneous, than elsewhere, as might indeed be expected from their more intimate dynamical correlation, consequently mere anatomical study would never have led to the discovery of the plurality of organs. Equally incompetent must be the anatomical method to determine the respective positions of the faculties."

Nevertheless, Gall proceeded on the objective method. He observed, and it is an acquisition of science in the present day, that the anterior part of the brain is connected with the intellect, the middle part with the moral faculties, where we might suppose them on other grounds because of their connection with the principal mechanism of motion, and the posterior part and the sides with the propensities. This principal division is accepted by Comte, only with different terms.

"The Human Soul" is divided by him into three groups of Faculties: The Intellect, the Heart, and the Character. Regarding the two latter words he says:

"The first word is used, in its moral sense, sometimes to express the feeling prompting us to action, sometimes the force which carries

that feeling into effect : the metaphoric use of the word being especially applicable, whether it is intention that we are considering, or execution. The distinction becomes especially apparent when we contrast the moral quality of the two sexes. Here 'heart' expresses tenderness in the one case, energy in the other. Again, the sense in which the word 'character' is most frequently used, and which is implied when the word stands alone, certainly refers to that combination of practical qualities on which, even in the case of thinkers, all effective results directly depend."

Comte represents the Brain as appropriated to three orders of functions ; the preponderating portion of it, and more especially the posterior region, being given to Feeling ; the anterior portion to Intellect ; the central portion to Activity. The feelings again are divided into two classes : the personal and the social.

"In the very lowest form of life, those in which there is no separation, or incomplete separation, of sexes, we only find the first form. But most of the higher animals exhibit the second form as undeniably as Man, though not to the same degree. There are consequently two modes in which vital unity is attainable; it may be reached through Egoism or through Altruism. The full development of the latter mode is peculiar to our own race. We must take the permanent antagonism between the social and personal instincts as the natural basis on which to construct the true theory of affective life ; a theory originating in Biology, and fully developed in the final science, Sociology."

So far there is no serious difference between Gall and Comte. Even the arrangement of the faculties Comte intended to carry out after what he calls "the idea" of Gall, but which was really an observation made by Gall, that the functions of the brain are so arranged that their succession presents a developed series, being higher in quality and inferior in force as we proceed from behind forwards. Comte thus appropriates the anterior extremity of the affective region to the social feelings, reserving the larger portion for the personal instincts ; the hinder portion always belonging to the less noble propensity. The benevolent inclinations are placed in proximity to the intellectual organs.

"Altruism when energetic, always directs and stimulates intelligence more effectively than Egoism, even in the lower animals. It supplies a wider field, a more difficult aim, and also a larger share in the common effort. This last point specially has not been sufficiently considered. Egoism has no need of intelligence to perceive the object of desire ; it has but to discover the modes of satisfying it. Altruism, on the contrary, cannot so much as become acquainted, without intellectual effort, with the external object towards which it is ever

tending. The connection of Intellect with Love is more prominent in the Social State, because the collective object of sympathy is more difficult of apprehension. But even in domestic life it is always clearly visible among all the more highly organised races."

We now depart from Gall, and follow Comte in his original speculations. We have had hitherto four groups of faculties:

1. Personal instincts } forming together the "Heart."
2. Social instincts }
3. The Intellect (Counsel).
4. The Character (Execution).

Comte now divides:

1. The Personal Instincts into $\begin{cases} a, \text{ the Instinct of Preservation.} \\ b, \text{ the Instinct of Improvement.} \end{cases}$

"The first of these," he says, "is the most energetic and the most universal. It is less noble and more indispensable than any other." To the biologist, Comte thinks, the separation of the two instincts will be evident enough, since in the lowest part of the animal scale, where the sexes are not entirely separate, the second instinct is not perceptible.

The Instinct of Preservation he divides into:

- a , the preservation of the individual, and
- b , the preservation of the race.

The nutritive instinct leads to the preservation of the individual; it is a strictly universal instinct, no animal supporting life without it. Even in the human race, this instinct, which includes all that relates directly to the material preservation of the individual, is the foundation on which all the others are raised. "There can be little doubt," says Comte, "as to where this instinct should be placed. The nutritive instinct should occupy the lowest position in the brain, as near as possible to the motor apparatus and to the vegetative viscera. I would place it, therefore, in the median portion of the Cerebellum, leaving the remainder of this large region to the reproductive instinct."

By such a process of reasoning, as Comte here applies, the most difficult problems that science has to deal with could be disposed of within a short space of time. And this method of discovering the functions of the Brain is called positive. What a pity that the anti-vivisectionists are not acquainted with it; it would form an additional argument for the abolition of experiments on living animals. Let us glance for a moment at what has been discovered regarding this instinct by anatomical and physiological investigations. Or else some admirers of Comte's procedure might argue that he has really made a discovery.

Gall did not get beyond the discovery that the olfactory nerves

are in the vicinity of the lower portion of the middle lobe, an area which, with our present knowledge of anatomy, is described as the lower extremity of the temporo-sphenoidal convolutions. But three of his successors : Dr. Hoppe of Copenhagen, Dr. Vimont of Brussels, and Dr. Crook of London, made simultaneously the discovery that the region of the sense of taste is in close relation with the olfactory centre, and their observations on men and animals, particularly the pathological changes observed, led them to express the idea—in 1823—that this area is in some way connected with the instinct of nutrition and incites us to the sensual enjoyments of the palate, and that its activity is independent of hunger and thirst. For various reasons, which I described at the beginning of my paper, Gall's discoveries and those of his followers were never investigated. Everybody believing Flourens, that the brain is a single organ, there could be no special centres as the one mentioned. After 1870, however, when Flourens' wrongly conducted experiments were set aside, physiologists devoted themselves to the discovery of special centres. And we have now Dr. Ferrier writing as follows, when describing the effects of electrical irritation of this particular brain-region in animals : Irritation of the olfactory centre has the effect of torsion of the lip and semi-closure of the nostril on the same side, as when the interior of the nostril is irritated by some pungent odour. Excitation of the lower extremity of the middle temporo-sphenoidal convolution causes movements of the tongue, cheek-pouches, and jaws, very much like those which are characteristic of tasting. This interpretation receives support from the results of destructive lesions, and we have, therefore, reasonable grounds for concluding that the gustatory centres are situated at the lower extremity of the temporo-sphenoidal lobes, in close relation with those of smell. Ferrier then proceeds to argue similarly as the three followers of Gall, that the gustatory centres are the physical conditions of the nutritive desires. He says :

"The physiological needs of the organism, in so far as they induce locally indiscriminable sensations, express themselves subjectively as definite appetites or desires, which are the conscious correlations of physiological wants. The appetite of hunger is the desire to satisfy or remove a local sensation, referable to the stomach, in which the physiological needs of the organism express themselves. The substrata of the feeling of hunger and appetite for food are the stomachic branches of the vagus, and their cerebral centres. And as local conditions of the stomach may destroy or increase the feeling of hunger, so central disease may give rise to ravenous appetite or sitophobia, conditions exemplified in certain forms of insanity."

This brain-area corresponds to a portion of the skull which is just in front of the highest tip of the ear by the great convexity of the

zygomatic arch, whereas Comte's localisation of the same instinct is at the back of the head close to the neck.

We now come to the preservation of the race. He we have two instincts : the sexual, and the maternal, *i.e.*, care for the offspring.

Succeeding to the series of preservative instincts, we have two of a more elevated and less universal kind, the instincts of improvement. Comte names them : the military, and the industrial instincts.

"Higher and less energetic than the preservative instincts, they are more directly concerned with the animal functions, whereas the former are principally concerned with vegetable life. They belong, nevertheless, like those, to the egoistic division ; since in stimulating the animal to ameliorate his condition, they appeal only to self-gratification. Such amelioration may be attained by either of two ways, which often co-exist : by the destruction of obstacles, or by the construction of instruments."

Comte places the military behind the industrial instinct in the posterior cerebral region. Needless to say, that experimental physiology can throw no light on such complex functions.

We have to consider two intermediate affections before leaving the five egoistic instincts and analysing the social faculties. These are :—

- a.* Pride, or the Love of Power, and
- b.* Vanity, or the Love of Approbation.

Both are essentially personal, yet spring from the relations of the individual to his fellow beings, and thus the means through which these instincts are gratified give them a social character. Pride aims at personal ascendancy by force, Vanity by opinion ; the one seeks positions of command, the other the consultative influence of conviction or persuasion. Regarding the situation of these intermediate propensities, Comte says, "the more personal of the two should be placed below the other ; that is to say, by the side of the industrial organ ; the other and more social being situated above that organ." Comte evidently had a high idea of the artistic designs of nature, for he arranges his localisations to please both the eye and the understanding. Thus the larger of the two affective regions ends as it begins with an organ occupying a central position. This completes the series of the seven personal instincts.

The higher propensities are three in number :—

1. Attachment,
2. Veneration, and
3. Goodness, or Universal Love.

"To attempt to reduce them to one," says Comte, "would be to fall back into the metaphysical confusion from which Gall delivered us. The full force of attachment is only felt when it binds two indi-

viduals together. The most suitable sphere or its action is in the life of the family. It is often found developed to a higher degree in animals than in man. Voluntary submission is the essential characteristic of veneration.

"We find this noble feeling in many of the animals, although less frequently than simple attachment. Some even carry it to the point of worship of the dead as in many recorded instances of dogs and their masters. Gall, whose combative life was not favourable to the exercise of this instinct, had but a very imperfect understanding of its nature. It was more successfully handled by Broussais, who crowned his noble career so honourably by the conscientious energy with which he studied and disseminated a doctrine which he had previously misunderstood."

The third and last of the social faculties is Universal Love, or "Humanity," as Comte terms it. Love of Humanity is the highest function of the Positivist Religion, as Charity is of the Christian. No wonder he should seek for it a position in the Brain.

"Universal Love," says Comte, "is the supreme term of the affective series. It admits of many degrees, but it is not divisible into any other, being characterised by the collective nature of its aim, whatever the extent of the collection. From the love of the tribe or community to the widest patriotism, or to sympathy with all beings, who can be brought to share a common life, the feeling never alters in character; only it becomes at once weaker and more elevated as it extends more widely, following the law common to the whole affective series. Animals have it in a less degree than the other two sympathetic propensities. It should not however be looked upon as an exclusive attribute of our race, though it forms its most distinguishing characteristic. By a happy ambiguity of language the same expression is used to designate the widest exercise of this highest affection, and also the race in whom it exists to the highest degree. And as in this fullest sense it is incompatible with any feeling of hatred to other races, there is little inconvenience in using the term as the expression of the largest and most universal form of sympathy."

For this reason Comte applies the name of Humanity to it. If his analysis is correct, Universal Love should be an element of every one's character, only counteracted by a larger force of selfish propensities. I leave it to others to judge whether this is so. My own experience leads me to take a more pessimistic view of my fellow beings. I have not come across many individuals whose leading trait of character is Universal Love, and even of those who generally are credited with it, *i.e.*, Philanthropists, many have other motives to their action than that which is apparent.

The localisation of these three affections is as arbitrary as the others; indeed, it is of no consequence where he places them, for he does not give us a particle of evidence why they should be in one place more than in any other. The highest median portion of the frontal division he gives to Humanity; Veneration he places immediately behind it, and Attachment occupies a lateral position. This leaves a space between the latter and the personal instincts, which he fills up by one of the three practical organs.

We have now to deal with the speculative region. Comte says that with regard to the intellectual functions he differs from Gall almost as widely as Gall differed from his metaphysical predecessors. On closer inspection we shall find, however, that he does not differ so very much from Gall. He accepts the principal division of the intellectual faculties, but makes use of more philosophic terms. The only great difference seems to me to lie in not carrying the analysis of perception as far as Gall has done. The severe criticism which Comte passes on him at this juncture arises from a total misunderstanding of the anatomical and physiological discoveries of Gall. He seems constantly under the wrong impression, that Gall first constructed a philosophical system and then set to work to prove it. Whereas Gall really made a number of discoveries respecting the brain, without any pretence as to accurate analysis of the faculties. Various followers have, like Comte, given to Gall's system a completeness, without pointing out clearly what is their addition, and what is original. Of all the critics, and they count by hundreds, not half a dozen have read Gall; they all judged him by the works of his followers. Besides, the opponents for the last half century have been able to say what they liked, there being no one to reply to them. Considering that Comte speaks so highly of Gall's genius in another part of his work, and works his teachings into his own, it surprises one to read at this point such criticism as the following:—

"In the absence of all systematic method, Gall constantly oscillated between the suggestions of his own mind and empirical observation, without ever proceeding on any regular plan. This fluctuation, however, which then was inevitable, did not seriously interfere with the first attempt to work out the physiology of the brain so far as the propensities were concerned. Here his logical deficiencies were compensated by a powerful combination of two most efficient instruments: the common sense of mankind, and the observation of animals. In this subject no one had gone utterly astray except the philosophers, whose endless points of discord had done little except hide the truth. In this part of the subject Gall's success was due rather to vigour of character than to intellectual superiority. As I have before remarked was the case with Kepler in the discovery of his second law. When

once he had broken entirely loose from the metaphysical delusions as to the sovereignty of mind, popular instinct soon led him to see in actual life the Heart was the principal arbiter. To examine its preponderance more thoroughly he was thus induced to employ the method of observation of animals, where there are no mental influences and social institutions to complicate it. Consequently his special remarks on the various propensities are for the most part extremely judicious. The alterations and eliminations which I have found necessary are few and of secondary importance. All that was left for me to do was the important work of studying the affections as a whole, so as to form them into a progressive series; a task which Gall had not even attempted. With this exception the result of my own examination has been to adopt all his principal conceptions, statical as well as dynamical.

"But with the intellectual functions the case was altogether different. Here Gall was not helped by the study of lower animals; and the light derived from the common judgment of men was too confused, and needed the application of a theory beyond his grasp. Notwithstanding this, he burst vigorously through the oppressive confusion of metaphysical prejudice. His own conclusions were indeed shallow and in every respect unworthy of him; still, ephemeral as they were, there was sufficient reality in them to assist me in ascending to the true encyclopædic point of view by founding the science of social life. Only from this higher level is it possible to discover the true laws regulating the nature and working of the intellectual functions. Abandoning as useless the self-inspecting process, we subordinate all theories of mind to the positive study of the collective evolution of the race; because it is only here that mental phenomena can display their real character. This, then, is the source of the very serious difference between Gall and myself on this great subject; a subject impossible to investigate adequately till the completion of my philosophical treatise."

While I agree with Comte that the self-inspecting process has not assisted the discovery of mental laws, I differ from him in ascribing to the study of the collective evolution of the race the possibility of localising brain functions. This study might be very useful in many respects, but it would not assist us in the enquiry which Gall instituted, and on which Comte is speculating, that is: What are the fundamental faculties and their physical conditions? We must not forget that Comte like Gall does not go beyond physiological psychology, a subject which only by observation and experiment can advance.

The first distinction in mental functions, which Comte draws, is that between the faculties of Conception and the faculties of

Expression. The latter presupposes the first and is subordinate to it.

"Spontaneous evidence of this close connection is furnished with the fact that all Western languages designate the reasoning process by a term which, if traced back to its Greek root, would express simply Speech. Conversely, in Italian, the word Ragionare is used of mere Exposition, be it even the simplest statement of fact. But associated as these functions are, they are distinct and must not be confounded. In diseased states they are often separated, the one being exalted, the other lowered. During infancy language is developed before reasoning, so that instruction always begins by mere formulas, leaving the meaning to be learnt afterwards, or not at all. Even in the mature state this plan is not altogether dispensed with."

We have two sorts of conception—one passive, the other active—adjusted to each other, but still fundamentally distinct. The first of these in Man may be called Contemplation; the second Meditation.

"By the one Mind receives from without the original material for its constructions, through the medium of the perceptive functions performed by the sensory ganglia. It then proceeds by the other to form combinations of a more or less general kind with the view of guiding conduct. Ideas, properly so called, that is to say, Images, are the result of Contemplation; whereas Meditation produces only Thoughts."

Comte holds Gall's view, that :

"In spite of theological and metaphysical prejudices which exalt these faculties into an exclusive privilege of our own race, both undoubtedly exist, in various degrees of inferiority, throughout the higher part of the animal kingdom. For with animals as with ourselves they are more or less necessary for personal, domestic, and above all for social life; and this for herbivorous as well as for carnivorous races. Necessities of nutrition, sexual relations, attention to offspring, are constantly calling out observations and reflections, which we in our stupid conceit fail to perceive."

Comte recognises two modes of Contemplation. The essential characteristic of the first is to be synthetic; it refers to objects; it deals therefore with the concrete aspect of things; from it we derive cognitions which are real but special; it is more used in art, whether technical or æsthetic. The second mode of Contemplation is analytic; it takes cognisance of events; its nature is therefore abstract; from it we get conceptions which are general but more or less factitious; it is more used in science.

The Meditative function is decomposed into Induction and Deduction; two distinctions universally accepted.

"It is clear that the act of Meditating can be performed in two very distinct ways: that is to say, either by laying down principles, or by deducing consequences. The first is the process of comparing; the second of co-ordinating. The former ends in Generalisation; the second in Systematisation. The distinction is apparent in every complete classification; the first process of which is to apprehend the relations enabling us to form groups; the second to arrange these groups in hierarchical succession. Again, taking a still wider field, we find Inductive meditation more concerned with relations of Similitude, that is to say, with statical relations; and Deductive meditation with relations of succession, that is, with dynamical relations."

As regards the localisation of the intellectual faculties, Gall's discovery that the frontal lobe is the seat of intellectual operations is confirmed by experiments, particularly those carried on by Hitzig, of Berlin (now in Halle), but also by numerous pathological observations in harmony with those made by Schröder van der Kolk, the most prominent Dutch alienist of this century. Comte does not throw the smallest light on the question, but with his usual confidence says: "it will be enough to remark that the contemplative function should be placed in the lower portion of the frontal region, leaving the higher portion to Meditation." As his motives for this localisation he gives: (1) the desirability of bringing the sensory organs into as close connection as possible with that cerebral function which alone is directly concerned with their operations; (2) the desirability of placing as near as possible to the affective region that intellectual organ which, when supplied from information from without, passes the final decision upon the impulses proceeding from the various propensities. And I might add a third motive, not stated by Comte, because Gall places the two groups in the same regions. Voluminous evidence has been furnished by himself and some of his more scientific followers.

I cannot follow Comte, however, in his localisation of abstract observation in the median line, and concrete contemplation laterally to it, nor is there any evidence why deductive reasoning should have a medium organ, and inductive logic a lateral position. He states that:

"Deductive reasoning as the more elevated and the more purely internal process, and at the same time less indispensable and less direct, should have a medium organ situated in the higher part of the frontal region. On it more than on any other depends our power of prevision; and this is a reason for bringing it into close contact with that one of the nobler propensities which it is its highest purpose to satisfy. Evidently the organ which co-ordinates should lie

close to the instinct which binds together. The organ of inductive logic would be lateral, and thus in more direct relation with that one of the organs of observation which supplies the greater part of its data."

The fifth intellectual organ is Language, under which Comte does not understand merely articulation of speech, but all sorts of communications more or less artificial, as cries or gestures. As regards its localisation he says :

"Our previous localisations leave only one place unoccupied for this fifth intellectual organ, namely, the lateral extremity of the speculative region; the remainder being already filled by the contemplative and meditative organs with the exception of the space previously allotted to the sensitive ganglia. It would commence, therefore, at the middle of the anterior margin of the frontal region, and extend in the direction of the temple. And this indirect solution may be supported on subjective grounds, the portion assigned to this organ being midway between the eye and the ear, its principal auxiliaries. It is, moreover, approximated to the active region, with which it is intended specially to co-operate, as the only link connecting it with the speculative region."

The last group of faculties we have to consider form the "Character" proper. They are : 1. Courage ; 2. Prudence ; 3. Perseverance.

"Every being endowed with active powers should have Courage in undertaking, Prudence in execution, Firmness in accomplishment. No practical success can be attained without the union of these three qualities. And conversely, their combined action, circumstances being sufficiently favourable, ensures the realisation of every project well inspired and wisely planned. Each of these attributes is in itself as independent of the heart, properly so called, as of the intellect, although its practical efficiency depends materially upon both. Their action, separately considered, is essentially blind; equally inclined, that is, to forward all designs, whether bad or good, under the impetus of a sufficiently strong desire. And thus it is that we find many animals superior to us in energy, in circumspection, or in perseverance, sometimes, perhaps, even in the combination of these qualities; and yet not able to utilise them as Man is enabled to do by his moral and intellectual superiority, especially when developed socially."

With reference to the localisation Comte states a very good reason for placing these three faculties between his organ of veneration and his industrial instinct, there being no other places available. But he assures us, even had there been space, he would have placed the three organs midway between the three classes of propensity, superior,

middle, and inferior, by the impulses from which they are successively influenced.

It is by such arbitrary proceedings and hypothetical conclusions of Gall's followers that much of the prejudice against Gall has arisen. Of his numerous critics, there are not half-a-dozen who have read his original works, and of these few not all possess the courage to express their admiration as Dr. Frederic Bateman, in the completest work existing on *Aphasia, or Loss of Speech* (London, 1890), has done, who says that "in spite of all that has been said against Gall, and all that has been written in depreciation of his labours, beyond all doubt his researches gave an impulse to the cerebral localisation of our faculties, the effect of which is especially visible in our own days, and I look upon his work as a vast storehouse of knowledge, and as an imperishable monument to the genius and industry of one of the greatest philosophers of the present age."

This completes the analysis of "the Human Soul" into 18 faculties, as follows :—

The Heart.	1. Nutritive Instinct (for the preservation of the individual).
Personal.	2. Sexual " (" " race).
	3. Maternal " (" " ")
Social.	4. Military " (for improvement).
	5. Industrial " (" ").
Intellect.	6. Pride.
	7. Vanity.
Character.	8. Attachment.
	9. Veneration.
	10. Benevolence.
Intellect.	11. Concrete Contemplation
	12. Abstract "
	13. Inductive Meditation
	14. Deductive "
	15. Language, Expression.
Character.	16. Courage.
	17. Prudence.
	18. Perseverance.
	Conception.

I have criticised Comte's *Analysis of the Human Faculties* only in one light, that of "physiological psychology," of which Gall was the originator. My quotations are sufficiently long to enable my readers to judge of it as a "speculative" system. In any case Comte himself had a high opinion of it, and prophesied it to be of great practical value. After pointing out its utility to philosophy, he goes on to say :—

"The diagnosis and consequent treatment of mental and moral disease will at last be cleared from the disastrous empiricism which has hitherto prevailed, and which too often results in entrusting the most difficult of medical duties to minds and characters of the lowest stamp. Further, the intellectual and moral study of animals, which as yet is limited to a few isolated cases, will assume its normal character and enter upon a path of continuous progress, throwing gradually fuller light on the positive theory of human nature, by connecting it with the lower types of vitality."

Yet, after all that has been said we ought to admire Comte for his courage in undertaking to solve a problem which even Mr. Herbert Spencer has declined to do, and for his still greater courage in acknowledging his indebtedness to Gall in face of almost unanimous opposition. For these reasons Auguste Comte deserves our respect, though the results of his "analysis of the human faculties" are far from what he himself calls "positive."

THE PRINCIPLE OF AUTHORITY IN ITS RELATION TO MORALS.

By REV. HASTINGS RASHDALL, M.A.

THE present paper presupposes an Ethical position, which I shall only have time to state, and not to justify. Want of time must be the excuse for the appearance of dogmatism which such a procedure must necessarily involve.

I believe that any rational system of morality must be based upon the acceptance of certain axioms, the truth of which is in the strictest sense self-evident and *a priori*. They are—

(1) That it is reasonable for me to promote my own greatest good. The Axiom of Prudence or Rational Self-love.

(2) That a greater good being always of more intrinsic value than a smaller, it is reasonable to prefer a greater amount of others' good to a smaller amount of my own, and consequently that I ought always so to act as to promote the greatest good on the whole. The Axiom of Rational Benevolence.

(3) That this good ought to be as far as possible equally distributed. Everybody to count for all, nobody for more than one. The Axiom of Equity.

In recent times these principles have received their clearest and

most convincing statement from Professor Sidgwick. But they are substantially admitted by all Rational Utilitarians from Cumberland and Clarke downwards, and by many other Moralists who do not usually rank as Utilitarians at all. So far I have nothing to add to the arguments of the *Methods of Ethics*, a work with which I may, I trust, assume my present hearers to be acquainted. When, however, we come to the question of the constitution of this ultimate good, I differ *toto caelo* from Professor Sidgwick. Professor Sidgwick recognises no ultimate good but pleasure, and pleasure measured by a purely quantitative standard. I believe that it is impossible, without logical fallacy, to combine a hedonistic interpretation of ultimate good with a rationalistic view of the basis or motive of individual conduct. If good is that which it is reasonable to desire, I cannot think it reasonable to prefer my neighbour's good to my own without looking upon this preference for the reasonable course as part of my own good. And if this is part of my good, I cannot but regard it as part of my neighbour's good that he should likewise act reasonably. Hence I must look upon Goodness as well as Pleasure as an element in the Ultimate good. Even if it is possible to state Professor Sidgwick's position in a way which escapes the charge of logical inconsequence, I am perfectly clear that this hedonistic view of Ultimate good does not correspond to the facts of the moral consciousness. Practically, I believe, the man who is influenced by the desire to do "what is right and reasonable as such," will always recognise it as better even for himself so to act than to pursue his own pleasure in ways condemned by Reason. The benevolent man will prefer benevolence to pleasure when the two collide, nor will he think it necessary (unless of course θέσις διαφυλάττων) to justify this preference to himself by assigning a superior intensity to the benevolent pleasures regarded simply as pleasures.

I must not stop to meet in detail the arguments which Professor Sidgwick has brought against this position. I will only briefly reply to two of them, because in so doing I shall, I trust, arrive at a clearer statement of the position itself.

(1) It is objected that to make Goodness an end in itself as well as Pleasure, is to abandon the possibility of a consistent Ethical system, since it introduces us to two heterogeneous and incommensurable ends. But the ends are not incommensurable, if the superiority of goodness to pleasure is recognised, and such a recognition is distinctly postulated by my argument. I recognise it as reasonable that I should prefer goodness (provisionally identified with Benevolence) to Pleasure. I recognise such preference as a greater good for myself, and therefore for others also. Hence the lower end pleasure is intrinsically desirable just in so far as its pursuit is consistent

with assigning a preference (in case of collision) to the higher end, Goodness. I do not say that there are not cases in which practical difficulty may arise in the application of this doctrine. That is more than could be alleged in support of any Ethical criterion whatever. I do contend that mine is not open to the *logical* difficulty imputed to it by Professor Sidgwick.

(2) Many of Professor Sidgwick's arguments seem based upon the assumption that to prefer goodness to pleasure—absolutely and as an end—is to prefer to a pleasant state of consciousness something which is not a state of consciousness at all. This seems to me a misconception. By goodness is meant a good state of consciousness, that is to say, a certain habitual state of the will of which the man is obviously conscious, and which further involves a certain regulation and control of the desires and affections. Of course in a sense goodness is an abstraction, but so is pleasure. You cannot have in practice a state of consciousness which is simply virtuous and nothing else any more than you can have a state of consciousness which is pleasant and nothing else. Feelings differ from feelings in other respects besides their pleasurableness; and feeling itself is only one element of consciousness which is never in sole and exclusive possession. A rational being always knows as well as feels, and it is only in the case of the most purely sensual pleasures that the pleasure itself depends merely upon the feeling as it would be irrespectively of the knowledge. The man is not simply pleased, he is pleased *at something*. What I contend for is that in estimating the ultimate value of this state of unconsciousness a rational being does not attend merely to the amount of pleasure involved in them, but also to the question what he is pleased at. He does not attend merely to feeling at all, but also to the state of his will and intellect. He approves or assigns value to his state of consciousness when it is as it should be. No doubt he cannot regard his consciousness as all that it should be when he is in pain. But he may possibly approve a consciousness which includes a rightly directed will, though including also some painful feelings, more than a consciousness in which there is no pain, except that arising from the knowledge of a wrongly directed will. Do you say that what is then preferred is a particular, a specific, pleasure? Be it so, if you like; this consciousness of a rightly directed will must undoubtedly be accompanied by pleasure. But what I contend for is (*a*) that the pleasure is not necessarily greater in amount than that of the pleasures to which it is preferred, and (*b*) that the preference is based just upon the conviction that it ought to be preferred, and not upon an impartial comparison of the resulting pleasure with other possible pleasures simply as pleasures. ~~convince~~ the man that there is no intrinsic superiority or superior

reasonableness in his preference for rational conduct, and it will cease to bring him any pleasure at all.

So far my Ethical criterion differs from Professor Sidgwick's only in assigning a place to Goodness in the *εὐδαιμονία*, or sumnum bonum: and Goodness has so far been defined merely as Rational Benevolence. From this it will follow—

(1) That Benevolence will be assigned a higher intrinsic value than other desires, or (if you like) the pleasure resulting from the gratification of the benevolent desires will be assigned a higher value than other pleasures.

(2) That other desires or the resulting pleasures will be assigned a superiority in proportion to their tendency to increase General Well-being (*i.e.* Goodness and Pleasure), even though such increase be no part of the object actually desired.

I have no doubt that on this latter principle it might be possible to justify the preference accorded to what are commonly accounted higher pleasures. On the whole, the pursuit of intellectual and æsthetic, emotional and social pleasure does tend to social good much more than the pursuit of sensual pleasures, though this tendency may not be consciously present to the mind of the agent. But I am not satisfied that even with these abatements the hedonistic criterion really corresponds with the facts of the Moral Consciousness. It is necessary for the purpose of my future argument that I should point out briefly some of the cases where our actual Ethical judgments are not explained by the hedonistic criterion modified only by the preference for socially-beneficial pleasures.

(1) In the case of the intellectual desires, it is possible to justify the preference accorded to them by their Utility—more conspicuously so when moral well-being is included in our conceptions of the Ultimate end. And I should myself strongly contend that the indulgence of æsthetic and intellectual desires ought to be in practice limited by considerations of Ultimate social well-being. It is, therefore, only possible to raise the question by postulating conditions which may be rarely or never actually forthcoming. I take two illustrations:

(a) The case of an individual banished to a desert island, to which we must add the condition that he knows by supernatural revelation that he can never rejoin human Society, and that no literary remains that he may leave behind him will ever fall into an explorer's hands. Should he use his Faculties, observe the habits of the birds and beasts around him, keep a diary, or write poetry or metaphysics, according to his taste; or if he happens to feel that he will really enjoy life more and feel the disadvantages of his position less, by simply basking in the Sunshine and assimilating his life as

far as possible to that of the beasts, may he lawfully adopt the latter course? Unhesitatingly I should say that he *ought*—that it is nobler, better, more reasonable for him, to lead the higher life, though the pains of solitude may be thereby intensified, and such animal enjoyments as are within his reach be correspondingly diminished.

(b) It is a commonplace to say that the Utility in any branch of Knowledge cannot be foreseen. As a general rule this is so. But I imagine that there must be departments of Pure Mathematics in which the probability of a practical application cannot be such as to justify this pursuit upon hedonistic grounds. Yet we should most of us say that they ought to be pursued by those whom they interest. No doubt the Mathematical discoverer is bound to communicate his results to others; and if he does so he is a contributor to the good of the world, though the gain to mankind is a purely speculative gain. But if this devotion to such pursuits be justified on account of the pleasure given to the six or a dozen persons capable of appreciating his discoveries, the question will arise whether he ought not, on hedonistic principles, to devote himself to some more widely felicific pursuit. The life of the student or researcher can hardly be justified except upon the assumption that knowledge is an end in itself, or (what is the same thing) that the pleasures of knowledge are intrinsically better than other pleasures.

(2) The duty of ordinary veracity seems to me merely another aspect of the recognition that it is nobler to find out and proclaim the truth than to acquiesce in pleasant falsehoods. By this I do not mean that the command to speak the truth is in Kant's sense (or one of Kant's senses) a Categorical Imperative. Both the duty of pursuing and of speaking the truth may be modified by conflicting duties, e.g., Benevolence. It is not, under all circumstances and for all persons, a duty to research; and in the same way it is often a duty to keep silent as to the truth, and on very rare and well-recognised occasions to speak an untruth. But it is to my mind quite impossible to justify the accepted view of this duty unless a higher value be assigned to the Truth-loving desires or the resulting pleasures than would be assigned to them by a purely quantitative hedonistic calculus.

(3) It may sound like a paradox to include Humanity among the virtues which do not admit of a hedonistic justification. Yet there are certainly cases in which we condemn inhumanity, though the resulting pleasure must be greatly in excess of the pain involved. Think of 5,000 people enjoying a gladiatorial combat or a bull-fight. On any reasonable estimate of the negative value of pain as compared with the positive value of pleasure, such a spectacle must cause more pleasure than pain on the whole. If that be doubtful, suppose the spectators increased to 50,000 or 500,000. Should we any the

less condemn the exhibitions? It will be said that the spectacle is brutalising, and tends to the cultivation of a habit of mind which leads to the infliction of pain on other occasions. The assumption is to my mind a very doubtful one. Indifference to the sufferings inflicted on some particular class of sensitive beings, or under particular circumstances sanctioned by custom, does not necessarily extend itself to other classes or other occasions. I have no doubt that a severe American slave-owner was as humane as other men in his relations to whites. And I am quite willing to admit that a sportsman is not usually cruel even to animals, when not hunting or shooting. If you are prepared to say that it is intrinsically bad for a rational being to find his pleasure in the infliction of unmerited suffering, we may reasonably condemn the Roman Amphitheatre or the Spanish Bull-ring—not otherwise.

(4) The condemnation of wilful suicide is a clear instance that there are cases in which to suffer appears to the developed moral consciousness better than to avoid suffering—though the latter course might, in some cases, involve saving of pain to the man himself and to all concerned.

(5) The class of duties which constitute to my mind the Instantia crucis with regard to Hedonism are those connected with sexual relations. The question hardly admits of detailed argument. But I really cannot conceive how it can be denied that there are certain kinds of sexual immorality which do not lead to a net decrease of general Pleasure, upon the supposition that all Pleasure is of equal value. On hedonistic principles, the average Greek morality, or something considerably lower, seems to me the only defensible one.

The above seem to me clear cases in which we do as a matter of fact condemn certain kinds of conduct which are not condemned by a fair and fearless application of the Greatest-Happiness formula, hedonistically interpreted. I will not attempt to defend the current morality on these subjects, and will only say that in some of these cases, if not in all, my own moral consciousness is as clear as it is on the duty of having regard to the general well-being, and I am desirous simply of following out the ultimate criterion to which Professor Sidgwick appeals, *i.e.*, reflective introspection, combined with "a comprehensive survey of the moral judgments of mankind."

The modification which these considerations compel us to introduce into the Greatest-Happiness formula may be expressed in many ways:

(1) We may say that some pleasures are higher than others. But this statement only meets the requirements of the case, as I conceive it, provided that we admit (with Aristotle) that there are some pleasures which are not good at all, which fall below zero in the scale

of Value—*πονεῖσθαι γένονται*. Of course it is quite true here, as in other cases, that the pleasure abstracted from all its conditions, would not be bad. The same pleasures which in a beast are perfectly natural and morally indifferent, are in a rational being condemned by the moral consciousness, though not leading to any ultimate hedonistic loss.

(2) Or we may say that some desires ought to be gratified in preference to others. This was the mode of statement which seemed to commend itself to the late Professor T. H. Green.

Or again (3), we may boldly say that we have certain Intuitions as to the nature of Ultimate Good. Any Utilitarianism which is not wholly, unreservedly hedonistic in its view of the ultimate end undoubtedly approaches very closely to Intuitionism. Let me, however, briefly note the points of difference :

(a) The Intuition is as to the end, not as to particular acts. Hence we get rid altogether of the idea of moral Rules which take no account of consequences. I do not speak the truth without considering the consequences ; but—in any case in which I have any reason to believe that my duty might lie in the opposite direction—I have considered the consequences, and find on reference to my Intuitive standard that the social loss occasioned by some little social misunderstanding or unpleasantness, is not so important as the gratification of the truth-loving desire in myself and others.

(b) Further, these Intuitions are not placed on a level with the moral Axioms upon which Rational Utilitarianism rests. They are much vaguer and more indefinite. I do not indeed believe it is possible to draw up or talk of Springs of Action in this order of their moral worth after the manner of Dr. Martineau ; nor can I define in any accurate way the relative value (for instance) that I attach to the cultivation of truth as compared with the prevention of pain. The non-hedonistic table of ends seems to me as incapable of exact formulation as the hedonistic scale of pleasures is admitted to be by most hedonists. In neither case is it possible for the individual to formulate his own Canon of Ultimate Value with precision. Still less is it probable that any two people will exactly agree in the details of such a comparative table.

(c) This brings me to the third and most important defect of the ordinary Intuitionist system. The older Intuitionists (though I am bound to admit that it is not easy to find an Intuitionist in the actual history of Philosophy that exactly answers to the bugbear of Utilitarian polemics) contended that certain moral rules are self-evident, that they would be admitted the moment they were stated by every individual consciousness at every time and place. At all events it is assumed that if you were to isolate a civilised European child and

bring him up without any moral education whatever, he would on arriving at years of discretion find that such propositions as the following had somehow got themselves written upon his moral consciousness :

(a) It is wrong to tell a lie except at the beginning and end of letters, or to a madman or person dangerously ill.

Or (b) it is wrong to gratify the sexual impulse except in permanent monogamous union.

Or (c) it is wrong to sacrifice culture to the pleasures of the table.

I have stated these propositions in the ordinary Intuitive form, but they might of course easily be stated in the form of judgments as to the relative value of motives or of Pleasures or desires or ultimate ends of actions. But in whatever form such moral judgments are stated, I believe that it is equally certain (a) that these intuitive judgments are really presupposed by the ordinary moral code, and (b) that these Intuitions are not in the individual, or at least in the average individual, independent of education, that even in the individuals who have had the same moral education, these Ethical judgments are pronounced with very varying degrees of clearness and certainty, and in some cases are probably not independently recognised at all but are merely submitted to in deference to authority. The thesis which I want to maintain is in short this—that the Ethical standard for the individual is and ought to be to a large extent fixed for him by authority. This is of course a proposition which will be generally admitted in reference to the choice of means to an ultimate Ethical end, whatever it may be. Every Utilitarian admits that in nine-tenths of his conduct a sensible man will accept the current moral rules as presumably representing the results of general experience as to the best way of promoting Happiness. In special departments of conduct, again, he accepts on authority the advice of those who know. But it seems hardly to have been sufficiently recognised that Authority has and ought to have its place in any estimate of the ultimate value of ends. Those who recognise any non-hedonistic conception of ultimate value—those who admit the existence of any intuitive or ideal element in the ultimate moral criterion, have usually assumed that the Intuitions for which they contend are found in all men equally. I believe, on the contrary, that the Intuitions on which such Duties as Veracity and Purity are based, are experienced with full clearness and complete independence by the few rather than by the many. No doubt to some extent our moral Instincts or intuitions or modes of feeling, or whatever you like to call them, have become hereditary. Some children probably do know that certain things are wrong before they have ever been taught that

they are so. But in many other cases the moral ideas which most obstinately reject a hedonistic explanation, were actually in the first instance imparted by others. This does not imply that their acceptance was mere submission to *external authority*, that quite other moral ideas arbitrarily devised by a parent or Priest would have met with the same acceptance. In the first place, where the rightness or wrongness of a particular article is really *believed* upon authority (not merely acted upon from habit or feared consequences), the acceptance of the belief implies that the distinction between right and wrong in general rests upon the individual's own moral consciousness. Moreover, if the authority is accepted on purely Ethical grounds it implies that the individual has recognised in the character or teaching of the authority (the parent, the teacher, or the Priest) other elements which correspond with his own independent Ethical judgments. He believes that the authority is likely to be right where his own Intuition is indecisive, because he has found them right where his own Intuitions were clear and decided. Moreover, there will usually or always be *some* independent recognition of the Ethical truth presented from the outside, even where the person who accepts it would never have arrived at it without such external suggestion and does not even then grasp the truth with sufficiently clear and strong conviction as to be independent of the additional sanction which it gains from the authority by which it is recommended. Moral beliefs of the kind which I am contemplating probably owe their acceptance in most cases to the strong Intuitions of the more gifted moral natures backed up by the dimmer and vaguer Intuitions of the average moral consciousness. But I believe most people who subjected their own moral convictions to a rigid scrutiny would find parts of their Ethical creed which they could not be sure that they would retain but for the fact that they find a similar belief to be strongly held by all the best men they know—and with increasing tenacity in proportion to their general goodness. I am not here referring to judgments as to the relation of means to ends: here we have little difficulty in satisfying ourselves that in this or that particular matter we see more clearly than the majority of the good or even of the wise. I am referring to questions of ultimate ends, of the relative value of different kinds of pleasures or of different elements in *Eēdaiμonia*.

It will not have escaped my hearers that what I am contending for is simply the position ascribed by Aristotle to the *φρόνιμοι* in the determination of the Moral Criterion. If it be asked what is the logical basis for the submission of my individual judgment to that of the *φρόνιμοι*, the best answer will be to point to the analogy of æsthetic judgments. If I am to attribute weight to the judgment of the *φρόνιμοι*, whether in Art or Morals, I must recognise in my

own consciousness the existence of perceptions similar to those of the *φρόνιμοι*. Unless I could myself perceive *some* difference between a higher and a lower pleasure in simple cases, I could not attribute weight to the judgments of a more developed moral nature in more difficult cases. But when once I recognise the reality of the distinction between higher and lower, when I recognise further that this distinction is perceived by different minds in various degrees, when I recognise from my own experience that it is capable of cultivation, it is reasonable to assume that certain persons possess this power of discrimination in a higher degree than myself. If it be asked how I am to determine what persons possess this faculty, I answer "the persons whose moral perceptions appear to me the finest where I am able to judge, the persons whose moral verdicts have been confirmed by my own moral consciousness up to the point of moral cultivation at which I have myself arrived." The logical basis for the submission to authority might be described as an induction by the method of concomitant variations. I infer that the perceptions of those whose decisions most recommend themselves to me within the merits within which I am able to check them will be equally trustworthy beyond those limits. Two points must be added to make my meaning clear:—

(1) It is but seldom that a man will accept the verdict of an authority which he is quite unable to verify by an appeal to his own moral consciousness. Here let me once again go back to the aesthetic analogy. I can to a certain extent appreciate the beauty of the Elgin marbles, but I cannot feel at all sure that I should have ever come to do so had I not been first informed that they were supremely admirable by authorities which I had reason to believe were likely to be right. And even now I am quite aware that I do not appreciate them in the way that a sculptor or professed student of Art appreciates them. I am more than doubtful even whether I could distinguish between a good and an indifferent copy of them. So in Moral matters, I imagine that there are few people whose Moral Intuitions are so clear and strong in all parts of the moral sphere that they are absolutely *aītarpkeis*—independent of the Intuitions of everyone else. Even if they can venture to place themselves among the *φρόνιμοι*, they would not be disposed to trust their Intuitions if they found themselves on any point in disagreement with the general verdict of other *φρόνιμοι*.

(2) There is, of course, a point at which the aesthetic Analogy ceases to be applicable. Although aesthetic sensibility is cultivated by imitation, it is not so absolutely dependent upon it as is the case with Morality. And therefore it is not only the moral perceptions but the moral practice—the character and the life—that mark

a man out as a *φρόνιμος*. This greatly facilitates the task of choosing one's moral authority. Most men possess powers of moral discernment much in advance of their own practice; and they know, from their own experience and observation, that the moral sensibilities are dulled or sharpened by practice. Hence it is reasonable for them to infer that those who most consistently live up to the ideal which all acknowledge are likely to possess superior discernment on those more delicate points on which their own Intuitions are confused or defective.

(3) It must be remembered that the region within which I contend for the authority of the *φρόνιμοι* is limited to the discrimination of ultimate moral values—to the determination of ends, not of means. Hence I can only bow to the decision of an authority where I am satisfied that the judgment of that authority is a genuine moral Intuition. Supposing the question to be merely one of the application of means to ends, I have no difficulty in setting aside a considerable weight of adverse authority. If I can account for the judgments of a good man or any number of good men by their bad political economy, their ignorance of history or of science, or their general stupidity, their verdict ceases to be of importance. Then, again, I must be sure that the judgment of my authority is not really determined by his deference to another authority, and that an authority accepted on other than purely Ethical grounds. For instance, many of the best men I know recommend fasting as a means of moral discipline.* Supposing I were satisfied that these judgments were due to the independent working of their own moral consciousness, I should have little difficulty in accounting for my own failure to recognise the moral advantage of fasting by my own moral inferiority. But then I find that the persons to whom I refer are invariably persons who hold an ecclesiastical theory which compels them to think that fasting is obligatory; while the best men who do not hold this theory seem as blind as myself to the moral advantages of the practice. Hence I have no difficulty in resolving the moral judgment of those who take an opposite view into judgments upon merely intellectual questions upon which I feel quite capable of judging for myself. Where I want authority to guide me in this sphere, I look for it in another quarter.

It may be objected that judgments of this kind cannot possess the binding force commonly attributed to moral as distinct from intellectual judgments—that I have practically resolved Ethical into aesthetic judgments.

I will not here raise difficult questions as to the objective validity

* I say nothing as to the practice of fasting as a means to a charitable end.

of æsthetic judgments; nor will I attempt to determine with any precision the exact psychological character of the Moral Intuitions of which I am speaking. I am content to admit the close analogy between the judgments in question and æsthetic judgments. But moral obligation does not rest upon these judgments, but upon the judgment of Reason, that I ought to promote the greatest good, whatever that be—a judgment which, to my mind, possesses a strictly Axiomatic character. If the validity of this fundamental principle be admitted, Reason obviously puts me under the obligation to employ whatever faculties I possess to ascertain what is the truly good. Just as I should be under a moral obligation, were I on a committee for selecting plans for a public building, to choose the design recommended by my own æsthetic judgment and that of any experts I might consult, so in matters of moral choice Reason puts me under the obligation of promoting what my own moral Intuitions and those of higher Moral Authorities determine to be the best sort of *eîdætiauovia*.

I have only left myself time to point out and not to develop the importance of the principle here laid down in regard to the relations between Morality and Religion.

(1) It supplies a basis for the recognition of the unique moral authority of Jesus Christ. If there were a man whose life, character, and ethical teaching are recognised by the general moral Consciousness, as rising in solitary grandeur above all other characters, lives, and teachings, it is reasonable that we should ascribe to the authority of such a man an authority transcending that which we ascribe to all other authorities. If we can go a step further and recognise in such a man sinlessness or moral perfection, would it not on *that ground alone* be reasonable to ascribe to him *moral infallibility*? From such a *man*—supposing I recognised him only as such—I could accept a moral rule as absolutely binding even though I were myself unable fully to appreciate the grounds of it. At the same time it is right to add that the grandeur of Christ's moral teaching comes out in nothing so much as in the reserve with which He abstains from laying down any but the most universal moral principles. His moral legislating is confined to those Axiomatic generalisms which are alone (to use the Kantian phrase) "fit for law Universal." There is, perhaps, only one subject on which it could possibly be contended that a moral rule has been laid down by Christ which, once it is laid down, would not necessarily have been affirmed by the consensus of good men apart from the authority by which it is recommended to them—that is, the absolute permanence of the marriage union and the prohibition of divorce with liberty to re-marry except for adultery. On that matter I am content to bow to His authority.

I will not say that the ascription to Christ of a moral infallibility would by itself supply a sufficient basis for the Nicene Christology, but I do say that the recognition of such an authority (which would probably be conceded by some Unitarians) approximates very closely to a recognition of a unique Divine Sonship for all who recognise, on the one hand, a view of the Divine Nature which makes it not incapable of entering into relations with the human Spirit; on the other hand, that the doctrine of Christ's Divinity, if it is to be a rational doctrine, must imply a *κένωσις*, or limitation of the Divine Nature by the conditions of Humanity—to a greater extent, perhaps, than has been recognised by those with whom this Kenotic view of the Incarnation has recently become identified.

(2) The principle of Ethical authority supplies a basis at once for the acceptance and the limitation of the authority ascribed to the Church. On the view which I have taken, the notes of the true Church will be mainly ethical. So far as its bounds are limited by theological belief, that will be so only so far as theological belief can directly or indirectly affect the determination or the sanction of Ethical truth. It need hardly be said that in this view the Church cannot be identified exclusively with any existing organisation; nor shall we always estimate the authority of the Church in the past by counting heads, whether mitred or unmitred, whether clerical or lay. What I mean by the authority of the Church might be otherwise expressed as the authority of the highest Christian public opinion. If the actual Church corresponded to her true ideal, there would be a single definite and universal organisation whose Ethical decisions and public policy would be the concrete embodiment of the highest Christian opinion. No Church, even in the days when the Church was nominally "undivided," has ever done more than approximate very imperfectly to this divine ideal. But, even in these days of Sectarianism on the one hand and clericalism on the other, the actual Christian Churches do serve, though most inadequately, as organs of Christian public opinion. To do so is, indeed, their very highest function.

I am surprised that the Anglican writers who insist so much on the authority of the Church, say so very little of her authority in matters of morals, and confine their attention to matters of pure Theology. The Roman Church is right in insisting that there cannot be infallibility in matters of speculative doctrine without infallibility in matters of conduct. That infallibility cannot be very important which ceases when doctrine affects conduct. For my own part, I recognise no infallible Church, whether in Faith or Morals. But Authority does not mean Infallibility. It would not be difficult, I think, to show that the authority which the Church still exercises upon matters

of morality is more real and commanding than that which it exercises upon matters of pure Theology. I recognise the authority of the Christian Church even in matters of Theology—provided it be the Church of the present as well as of the past, of the laity as well as of the clergy, of the learned as well as of the ignorant. But I attach infinitely greater weight to the judgment of the Christian consciousness in matters of Morality. The authority which is important in critical or speculative matters is the authority of the few—of a very small class capable of forming independent opinions and a larger class capable of criticising or judging when duly informed of the matter. Hence I should attach very small importance to the decisions of a Synod of Bishops or clergy or laity, if I knew that nine-tenths of them were totally unacquainted with scientific Theology. But in matters of Ethics, the authority to which we rightly defer is much more widely diffused. The higher spirits, whose Ethical intuitions are clear and strong and independent, are found not only among the highly cultivated few or even among the larger minority of instructed persons. And the Ethical consciousness which is capable of recognising and ratifying the highest Ethical teaching, when once it is presented to them, is still more widely diffused.

And the force which is to this day exercised by the Church, understood in this wider sense, is still enormous. Why is it that our accepted morality differs from that of the Greeks as to sexual relations, as to Suicide, as to Infanticide,* as to Slavery, and a thousand other matters? Historically the answer is that the Christian consciousness, accepting, interpreting, and applying the teaching supplied by Christ Himself, or better, absorbing the new Spirit brought into the world by Him, has so decided these points. The Church of the present, though it is continually modifying the decisions of the past, still upholds on these fundamental points the decisions of the past. It is in the Ethical sphere that the claim of infallibility or unvarying consistency can be most consistently refuted. Witness the history of Monachism and the history of Asceticism. But it is in the Ethical sphere that the authority of the Church has been, on the whole (with full allowance for the profound, the appalling, gulf between the ideal and the actuality), most real, most beneficial, and most indispensable.

* I do not, of course, mean that there was *no* consciousness of the wrongness of Infanticide in the Hellenic world. There was some such consciousness as to most of the practices more or less tolerated in the ancient world, but condemned by Christian Ethics.

THE PHILOSOPHY OF ROSMINI.

By ARTHUR BOUTWOOD.

IN arranging this evening's paper I have thought it well to devote as much space as possible to simple exposition. In this country, at least, Rosmini is a comparatively unknown writer and before proceeding to comment upon his system it is necessary to explain at some length what that system is.

In the first part of my paper, therefore, I have attempted to place before you as nearly as possible in Rosmini's own words what I conceive to be the substance of his teaching.

"The fact," he says, "which I propose to explain is that of the existence in us of ideas or cognitions."

"To indicate as briefly as possible where its difficulty lies, I reason as follows:—

"In order that we may make a judgment, our mind must be already in possession of some universal.

"For instance, when I say, 'this sheet of paper is white,' or 'this is a wise man,' my affirmation supposes in me the knowledge of the universals called whiteness and wisdom; for otherwise I could not attribute the predicates to these particular subjects rather than to others.

"It would take a long time to demonstrate by induction that this applies invariably to all judgments; but it could always be done with strict logical accuracy. We may therefore lay it down as an incontrovertible truth, that a judgment is nothing but an intellectual operation by which we join a given predicate with a given subject.

"Such being the operation called judgment, we can see that it implies, first of all, the knowledge of a predicate distinct from the subject, and that without this knowledge the judgment would be impossible. Now, a predicate distinct from the subject is always a universal; for so long as it is not actually united with this or that particular subject, it is capable of being united with many, indeed with an infinite number of possible subjects; which is precisely what we mean by the term universal as applied to ideas.

"But if no judgment can be made without our being already cognisant of some universal, the question arises: how do we come by the knowledge of universals?"—(*Origin of Ideas*, vol. i, sec. 42.)

"A very little reflection will suffice to show that there are only two ways in which this knowledge could be acquired—that is, either

through *abstraction* exercised on a particular idea, or through a *judgment*.

"*Abstraction* may draw the universal from a particular idea by doing three things:—

"(1) Dividing that idea into the two elements of which it is composed, *i.e.*, (*a*) the *common*, and (*b*) the *proper*;

"(2) Leaving aside the *proper*; and

"(3) Fixing the attention on the *common* alone, which is precisely the universal about which we are here inquiring.

"Now, we must recollect that the particular idea is in us antecedently to these three intellectual operations, else they could not be performed on it, and that their object, therefore, is, not to cause the *common* to exist in our mind, but simply to *observe* it in such a manner that it may be seen by its pure self alone.

"But it could not be thus observed unless it were already contained in that particular idea.

"Therefore *abstraction* cannot account for the formation of universals, as certain philosophical schools have erroneously supposed. It can only serve for the purpose of disengaging them from heterogeneous elements, and placing them before our attention in a perfectly isolated state."—(*Origin of Ideas*, vol. i, sec. 43.)

"It only remains to say, therefore, that universals are formed by means of a *judgment*.

"But we have already seen, that every judgment presupposes in us the knowledge of some universal. In fact, a judgment is nothing but an act by which we apply a universal to a given subject, or, in other words, assign this subject to a class of things determined by that universal.

"If, then, we cannot begin to judge except by making use of a universal, it is manifestly impossible to explain the *formation* of all universals by means of *judgments*. We must needs assume that antecedently to all our judgments we know some universal which renders possible to us the making of judgments, and, through them, the formation of other universals."—(*Origin of Ideas*, vol. i, sec. 44.)

Now the most primitive of all judgments is that which predicates existence, which says such a thing as—

"The word *existence*, taken without any adjuncts, indicates only an idea. A particular being (*ens*) is not said to have existence for us, until the concept of it has been formed in our mind. Hence, prior to our conceiving a corporeal being, this being exists, but we have not any knowledge thereof, and consequently no word by which to express it.

"When this corporeal being acts on our senses—supposing that

our intellectual faculty does not operate at all, and that we have sensations only—the same corporeal being, though acting on our sensitivity, would begin to have a relation with us. We, on being thus affected by it, might perhaps utter a cry, which would not, however, be a *word*, expressive at once of our affection and its cause. It would not be the sign of a *judgment*; nor indicate a being as it is in itself. It would simply be an *instinctive effect* of the modification or feeling caused in us by that agent. So far, then, there would be no intellectual perception of a *being*.

"The only example I could adduce of this would be the inarticulate cries uttered by animals, or those interjections of pleasure or of pain which, without designating *thought*, as words do, are nevertheless instinctively produced by the feelings experienced by the animal. All the articulate sounds which I could quote—as, for instance, the words *being*, *body*, *soul*, &c.,—express concepts already formed in the mind, and are quite another thing.

"In the state of which I speak, therefore, we should not have perceived the *existence* of the being: we should only have felt the passion which the being has produced in us by its action.

"But let us now assume that our faculty of judgment (the reason) is also set in motion, and that the agent of which till now we had only a passive sense-perception, is known by us in itself, or made an object of intellectual perception. I ask, what is it that takes place within us in this new operation?

"Simply an interior comparison between the particular passion received by our senses, or, to speak more accurately, the *term* of that passion—the thing *felt*—and the idea of existence. Through this comparison we find that the thing felt and the *existence* of an agent different from ourselves are intimately related, and so we say to ourselves, 'That of which I feel the action in me *exists*' (in a given degree and mode determined for me by the nature of that action). Thus the judgment perceptive of that corporeal being is closed. Through this judgment we consider that being as belonging to the immense class of existent things, and therefore see it under a universal aspect, as *existing* in itself, independently of us, of our passion, and of all other beings whatsoever.

"From this analysis we can see that the intellectual perception is nothing but 'the vision of the relation between a thing felt (term of sense-perception) and notional or ideal existence.'

"The *Intellect*, defined as the faculty of the intuition of *existence* or *being* in general, is limited to this intuition, has no idea save this most universal one.

"The *Reason*, defined as the faculty which applies the universal idea to the 'sensibles' outside of us, is nothing but the power we

have of seeing the relation between what is supplied to us by the senses, and the *existence* of which the intellect has intuition.'

"Hence in each intellectual perception of a corporeal being there are necessarily three elements—

"(1) A universal seen by the *intellect* (ideal existence);

"(2) The effect produced by the particular being acting on the *sense*;

"(3) The vision of the relation between the said agent and the universal idea (act of *reason*, perception).

"Failing any one of these three elements, the intellectual perception, and therefore the concept or idea, of a corporeal being would be impossible to us.

"Given, then, that our senses have been affected by the action of a particular body, or, speaking improperly, of 'the particular *existence*' of that body, we should not by this alone, have the concept or idea, but only the sense-perception of it. A particular being or (improperly) a particular *existence*, is not, therefore, knowable through itself, *i.e.*, is not an idea; it is merely a sensible element, though necessary for the concrete idea or intellectual perception, which as I have said, is simply 'the vision of the relation between a particular thing acting on the senses, or (improperly) the particular *existence* of that thing, and the universal called *existence*.'

"The outcome of all this is—

"(1) That there are not two ideas of *existence*, the one particular and the other universal, but there is one only—that of *existence* in general.

"(2) That there are many perceptions and concepts of *existent beings*, and they consist, to say it once more, in the vision of the relation between the particulars affecting our senses and the idea of *existence*."—(*Origin of Ideas*, vol. i, sec. 358.)

"Our difficulty being thus cleared up by a more detailed analysis of the way in which things come to be *understood* by us, it will be easy to see in what sense the name of *synthesis* or union can be legitimately applied to an act which is wholly spiritual—I mean the act by which we cognise or intellectually conceive a corporeal being.

"This act consists in our 'seeing the relation between the particular agent as perceived by the senses, and the universal idea of *existence*.'

"Therefore we do not by it place this idea in the particular being as though the idea became a component part thereof; no, we simply conceive (in virtue of the *unity* of our intimate self) the relation which that being has with the *existence* of which we have the notion or idea.

"Evidently, to perceive a relation is not to confound or mix up

in combining the two terms of that relation. This would be a relation which is similar to that of two liquids poured into the same vessel, or of two variables made up into one dish. In the vision of a dream, on the contrary, the two terms are kept distinct : their union consists simply in this, that the intelligent spirit, by looking simultaneously at both and comparing one with the other, finds them related together, and affirms accordingly. That relation is a purely mental entity, which causes no disturbance or alteration in the terms themselves. It only serves as a light to direct our intellectual act ; it makes the seeing of it constitutes the act itself, i.e., the intellectual perception which is at once a cognition and a concept." — (*Origins of Ideas*, vol. I, sec. 202.)

"When I say to myself that there exists any particular real being, I should not understand my own meaning if I did not know what *entity* was. Therefore the notion of *being* or *entity* in general must be in my mind before I can pronounce any of those judgments whereby I affirm the existence of any particular real entity." — (*Philosophical System*, sec. 15.)

"This consideration shows me that it is one thing to know what *being* in general is, and another to know that there is a particular real being. To know that there exists a particular real being, I must make an affirmation ; while to know simply what *being* is I require an *intuition*, or rather but another act of the mind, which I shall call *intuition*. These two modes of knowing are clearly and fundamentally different, and are so related that intuition must precede affirmation. Human cognitions, therefore, are divisible into the two great classes, those arising from affirmation and those arising from intuition." — (*Philosophical System*, sec. 16.)

"Let us now examine the difference between *particular real being* and *being in general*. So long as I know only what *being* is, I do not know that there exists any particular or real being, and yet I understand what *being* is. The phrase 'to understand what *being* is, expressed in philosophical language, means to understand the *essence* of *being*.' — (*Philosophical System*, sec. 15.)

"But if, after knowing the essence of *being*, I affirm to myself, that I know that a particular real being exists, what do I know more than before ? Before answering this question I must meditate on the affirmative act whereby I arrive at this new cognition : I must ascertain the nature and grounds of it. Why then do I affirm that a *being* exists ? What causes me to do so ? What is this existence ? It is clear that in many cases, if not in all, what induces me to make an affirmation is a *feeling*. For example, that which causes me to affirm the *existence* of external bodies is the sensations which they produce in me. I am induced to affirm the *existence* of my own body

by the peculiar feelings which I have of it. Lastly, I am led by an inner sense or feeling to affirm that I myself exist. In all these cases what makes me affirm that a particular real being exists is feeling. Hence, in the given cases, every affirmation, every judgment whereby I affirm that a particular real being exists, may be reduced to this form: there is a feeling, therefore there exists a being."—(*Philosophical System*, sec. 19.)

"I start from a most obvious fact, the study of which, nevertheless, forms the whole of the theory I am about to expound.

"The fact is, that we think of *being* in a general way. However we may explain it, the fact itself cannot be called into question.

"To think of being in a general way is nothing but to think of that quality which is common to all things, without minding any of their other qualities, whether generic, specific, or proper. I can, if I wish, give my attention to one element of a thing rather than to another; now when I give my attention exclusively to that quality which is *common* to all things, namely, to *being*, it is then said that I think of *being in general*."—(*Origin of Ideas*, vol. ii, sec. 398.)

"Having established the existence of the idea of *being* and learned by its nature, let us see how it comes to be in our mind, or in other words, what is its origin."—(*Origin of Ideas*, vol. ii, sec. 413.)

"The idea of *being* does not come from corporeal sensations.

"Thoroughly to grasp the truth of this proposition, it is necessary to consider the characteristics proper to the idea of *being*, and which are far removed from all that corporeal sensation can give us."—(*Origin of Ideas*, vol. ii, sec. 414.)

"When we think of a *being*, whether particularised or not, we consider that *being in itself*.

"Into such consideration there does not enter any relation whatever which that *being* has with us, or with anything else: the consideration is absolute.

"This way of perceiving things as they are in themselves, entirely apart from anything to which they might be related, is common to all that is conceivable by our mind. By this perception we look at them, so to speak, impartially, with those degrees of entity which they possess."—(*Origin of Ideas*, vol. ii, 415.)

"Now, I say, that none of our sensations can give us an *objective* perception such as here described. *Objectivity* belongs exclusively to the *intellectual* perception.

"In truth, our sensations are nothing but so many modifications or passions of our composite nature.

"All, therefore, that our sensations cause us to feel can only be a relation which external things (. . . .) have with us—a power they possess of modifying us. But the *suppositum* of this power

could never be perceived by us as it is in itself, if we had nothing but sensations to draw from : for existence considered in itself does not fall under our senses."—(*Origin of Ideas*, vol. ii, sec. 416.)

"*The idea of being does not come from the feeling of our own existence.*

"If the *idea of being*, and by consequence any other idea, cannot come from external sensations, it follows that neither can it come from the *feeling of our own existence*; since this feeling is nothing else but a permanent internal sensation, endowed with certain peculiar qualities; and hence it is of such a nature that the same reasoning by which I have hitherto proved that the *idea of being* cannot come from corporeal sensations, is equally applicable to it."—(*Origin of Ideas*, vol. ii, sec. 438.)

"*The idea of being cannot come from Locke's Reflection.*

"By Locke's Reflection I mean that faculty by which our mind can fix its attention on the external sensations, or on the internal feeling—that is to say, either on the whole or on any part of the sensation or the external feeling, without, however, adding anything to them, and hence without forming to itself any new object."—(*Origin of Ideas*, vol. ii, sec. 444.)

"What I have said above proves to evidence that the idea of being does not come from Reflection as understood by Locke.

"For I have demonstrated (1) that the idea of being is in no way contained in our external sensations; (2) that it is not contained in the feeling we have of ourselves; (3) that Locke's Reflection is a faculty which observes and discovers what there is in the sensations, or in the internal feeling, without adding anything to either.

"From these three propositions it follows that, since Locke's Reflection cannot find in these two things what they do not contain, it cannot find the idea of being in them."—(*Origin of Ideas*, vol. ii, sec. 447.)

"*The idea of being does not begin to exist in our own mind with the act of PERCEPTION.*

"It will be remembered that we have found the intellectual perception to consist of three parts, viz.: (1) Sensation . . . ; (2) the *idea of existence in general . . .*; (3) the *relation affirmed by us between the sensation and the idea of existence*, or the *judgment whereby we attribute the existence known in the idea (the predicate) to the force acting in the sensations—which attributing is the link which joins these two things together into a being, and in it lies precisely the act of the *intellectual perception of bodies*.*"—(*Origin of Ideas*, vol. ii, sec. 454.)

"If we now enquire whether the said parts are of their own

nature contemporaneous, or successive, we shall discover that their order, both as to nature and time, must be the following:—

First, the *idea of existence*; next, the *sensation* (including the *corporeal sensitive perception*); thirdly, the *judgment*, which joins the two together, and thus generates the perception of the existence of bodies.

"In fact, that a judgment cannot be closed unless its two terms (predicate and subject) go before it, seems self-evident."—(*Origin of Ideas*, vol. ii, sec. 455.)

"The idea of being is innate in us.

"This proposition is a consequence of the preceding ones; for—

"(1) If the idea of being is so necessary that it enters essentially into the formation of all our ideas, so that we cannot think except by making use of it;

"(2) If the idea is not contained in sensations;

"(3) If it cannot be drawn from sensations, external or internal, through reflection;

"(4) If it is not created in us by God in the act of intellectual perception;

"(5) Lastly, it would be absurd to say that it emanates from ourselves.

"It remains that it is innate in us; in other words, that possible being is present to and contemplated by us from the very first moment of our existence, although we do not advert to it until much later."—(*Origin of Ideas*, vol. ii, sec. 467.)

We have now discovered the fundamental and characteristic feature of Rosmini's philosophy—the doctrine that we have *an intuition of the idea of being*, and that that idea is an essential element in all our other conceptions and ideas. We have now to follow him in his attempts to show how, by means of this primary intuition, we obtain the ideas or cognitions of ourselves, of our bodies, and of the external world of things. These are questions of Psychology.

As a preliminary, he asks what is the method of Psychology. In reply he says:—

"This must plainly be one of observation. The facts must be clearly presented, their parts distinguished, comparisons instituted between them, and, finally, conclusions drawn from them. In all this the eye of the mind must keep itself constantly fixed on the naked fact in order to see it clearly, and without allowing the imagination, during the process of observation, to add, obscure, or subtract anything. In this way it will afterwards be able to bear testimony with the utmost fidelity, precision and sagacity, and to produce a

description corresponding in every respect to the truth of the thing."
—(*Psychology*, vol. i, sec. 28.)

After this explanation he proceeds to deal with the concept of the Ego—

"We cannot do otherwise," he affirms, "that set out with the concept of the soul which we have; and hence we must, first of all, strive to see whether the soul, as conceived by us, be indeed the soul as it is in itself, apart from our conception—apart from all that our mind may have added in the process of conceiving it."—(*Psychology*, vol. i, sec. 60.)

"Now I cannot doubt that I myself, who feel, who think, who speak, am the soul. The soul, therefore, as I present it, is that being which I mean to express when I use the monosyllable I."—(*Psychology*, vol. i, sec. 61.)

"This is what cannot be discovered except by the analysis of the concept which the word I expresses."—(*Psychology*, vol. i, sec. 62.)

"He who says I, meaning what he says, performs an interior act, whereby he pronounces his own soul. The monosyllable I, therefore, is the vocal sound pronounced by an intellective soul, or, more properly, by an intellective subject, to designate an act of its own, when it turns its attention inwards upon itself and perceives itself."—(*Psychology*, vol. i, sec. 63.)

"Fixing our attention at this point, we see:

"(1) That the soul which pronounces itself by saying I is a real soul. The I, therefore, does not express a pure idea; does not express merely the *concept* of the soul, but expresses the *perception* of it. It adds to that which the word *soul* expresses (idea or essence of the soul) the perceived reality."—(*Psychology*, vol. i, sec. 64.)

"That the I is not the perception of any soul indifferently, but of my own soul. The word I, therefore, adds to the general concept of the soul the relation of the soul to itself, a relation of identity. It, therefore, contains a second element, distinct from the concept of the soul; it is a soul which perceives itself."—(*Psychology*, vol. i, sec. 65.)

"That the soul does not turn back upon itself, or perceive itself unless it is excited and attracted by some new and particular feeling arising in it, either active or passive. The reason of this is that the mere substantial feeling of the soul, being natural and uniform, is not capable of arousing the attention of the soul itself. This attention is a new and particular act, and hence requires, for its sufficient cause, a new and particular stimulus. The soul, therefore, which says I, does not pronounce itself as it is in its primitive state, but as already in a state of activity superinduced upon it."—(*Psychology*, vol. i, sec. 66.)

"Moreover, that if, in saying I, the soul expresses itself as acting; if it says, 'That which does this—for instance, wills—is I,' this expression includes a fourth element, since it may be translated and resolved into this: That which wills is the same principle which perceives itself, and consequently says I. The I, therefore, includes another reflection, and therein a relation of identity, whereby he who speaks and pronounces I, means that he perceives himself as acting, as a being identical with that which acts."—(*Psychology*, vol. i, sec. 67.)

"The pure notion of the soul can be derived from the *Ego* only by divesting the *Ego* of all the elements contained in it foreign to that notion."—(*Psychology*, vol. i, p. 44.)

"In the first place, when the soul says 'I act,' it affirms itself as acting. In what manner does it affirm this? In thought, because to affirm is to *think*.

"But since the soul, in this operation, thinks itself, to affirm itself as operating is to turn a *reflection* of the soul back upon itself.

"If the soul did not make this reflection, if it did not think itself, it would not know itself, which is the same thing as saying that it would not have any consciousness of itself.

"Now, is consciousness of itself essential to the soul? In order to find this out, we must see whether the reflection of its thought upon itself is essential to it."—(*Psychology*, vol. i, sec. 71.)

"Fichte began with this proposition, which contains the error indicated, 'The *Ego* posits itself.' The proposition is manifestly absurd, because it assumes that the *Ego* operates before it exists. Now, certainly no being can posit—that is, create—itself. He ought to have said, 'The soul posits the *Ego*', because this would signify, 'The soul affirms itself,' and in so doing changes itself into an *Ego*, the *Ego* being the soul as affirmed by itself. Thus the *Ego* is distinguished from the soul, the *Ego* being the soul invested with that reflection whereby it affirms itself. Now, there is nothing strange in the soul's producing this reflection, but it is passing strange that the soul should be the *Ego*—that is, the reflected soul—before it has made the reflection in question."—(*Psychology*, vol. i, sec. 73.)

"It only remains to be explained how the soul can perceive itself."—(*Psychology*, vol. i, sec. 74.)

"In order to do this, we must have recourse to the theory of intellectual perception which we have expounded in the Ideology and elsewhere. This theory describes perception as an act of the subject, which, intuiting the essence of being, sees this being realised in feeling. No one can observe that there is being in feeling, unless he first knows what being is; that is, unless he intuits the essence of it. But granting that the subject has this intuition of being, it is no

longer difficult to understand how it should see or recognise being wherever it is, under any form, and hence also under the form of feeling, which is one of the three forms under which being is. This being granted, we can understand how the subject, man, intellectually perceives himself, admitting that the *self* is only a substance-feeling. Just as he perceives any other feeling, so he perceives that feeling which he denominates *himself*. There remains the difficulty, how he knows that the feeling which he perceives in this instance is himself; that is, how he knows the identity between the *self* perceiving and the *self* perceived. It is plain that if, in order to know this, he had to make a comparison between the two, it would be impossible in any way to explain our perception of ourselves. It must, therefore, be denied that man knows this identity through a comparison between a perceiving self and a perceived self. Once more, therefore, how is he to know it? He must know it immediately in the very perception of self. In what way? In this way:—If he sees the essence of being in his own feeling, so that he judges this feeling to be a being; in this perception, as in all others, it is the feeling that determines that the percept is one being rather than another. For this end the feeling must be perceived as it is; it is not altered by the act of perception. It is, therefore, from the variety of feelings that we know the variety of beings. It follows that the nature of feeling must possess the characteristic mark enabling us to distinguish the feeling of ourselves from all other feelings, from feelings that are not of ourselves. Now what must this characteristic mark be? To repeat what has been already said, it must be a *something* immediately perceived in the feeling itself. Now this something which is in our feeling of ourselves, and which forms a part of that feeling—which distinguishes it from all other feelings, is exactly that which is incommunicable in the feeling, that on account of which it is called, ‘feeling of ourselves,’ and if we must express it by a general and abstract term, we might properly enough call it *selfness*.”—(*Psychology*, vol. i, sec. 75.)

That we really do possess such a characteristic or fundamental feeling seems, according to Rosmini, to be obvious from the following considerations.

“I find that I have in my present state a large number of feelings, such as those which come from my body. I have the memory of other sensations which I formerly had; besides, I possess many cognitions and think many thoughts. But I find that all my sensations, past or present, and all my thoughts have something which distinguishes them from one another. In fact, if two sensations or two thoughts had not something to distinguish them, they would not be two, but one. On the other hand, I see it is always I who think, who perceive, and who do all these things—this I, myself—and that,

if I were not always the same, I should never be able to compare two sensations or two thoughts and discover their diversity. This I, therefore, is not the sensations and thoughts, because these are divers and the I is one. On the contrary, the I is the subject which possesses the sensations and thoughts. Hence the I, considered in its own nature, is independent of the sensations and thoughts, since these are accidental, and continually vary, without ever being able to cause the I to vary. If, therefore, I begin with my mind to remove any particular thought or sensation of mine, I observe plainly that I do not thereby destroy the I. I feel that the I remains. If then the I remains after I have removed any particular sensation or thought, it is clear that, even if I took away from myself, one by one, all my accidental sensations and thoughts, I should not thereby have taken away the I, the essence of which has suffered from being divested of its accidental feelings and thoughts. The I, therefore, remains, even when deprived of all acquired modifications. In this way I am finally able to form an idea of the feeling which expresses itself in the word I, in all its purity and primitiveness."—(*Psychology*, vol. i, sec. 97.)

"The soul, therefore, is expressed by the monosyllable I; but in order to know its primitive and essential state, we must bear in mind that this monosyllable expresses, besides the concept of the essence of the soul, diverse relations in which the mind itself involves it through the operations which it performs upon it.

"Hence, having removed the veils of such relations, we have found at the bottom of the *Ego* a *feeling* anterior to the *consciousness*—a *feeling* which constitutes the pure substance of the soul. We must now meditate upon this *feeling*, prove its existence, and describe its nature."—(*Psychology*, vol. i, sec. 81.)

Rosmini next treats of the qualities of the soul. I will not ask you to follow me through his account of the unity, the immateriality, and the immortality of the soul, but I may perhaps be permitted to place before you a few passages bearing on the simplicity of the soul, interesting, not only in themselves, but also as showing the use Rosmini made of ancient writers, and still further as showing the teachers of antiquity in a more favourable light than that in which it is unhappily now the fashion to view them.

"If the parts of a substance are not united and held together by a simple principle, it becomes an absurd substance, because that is absurd which cannot be thought, and in a body the first parts are not found existing in themselves, since in every part assignable there is still a smaller part outside of all the others, and there remains no extended part that is wholly in the whole of itself. There remain, therefore, only simple points existing in themselves. But such points are not a body, nor are they parts of an extended body.

Consequently, they cannot form a continuous, however much they may be multiplied. Even an infinite sum of beings, each having an extension equal to zero, can give no result but an extension = 0. Hence the extended does not exist, or if it does, it does so only in a simple principle which holds it together." — (*Psychology*, vol. i, sec. 443.)

" This was the irrefragable argument of the Platonists of Alexandria.

" It was stated by Nemesios in these terms: ' In opposition to all those who maintain that the soul is a body, we need only adduce the arguments of Ammonios, the master of Plotinos, the Pythagorean.' They are these: ' Bodies naturally change, and are completely dissipated, being divisible *ad infinitum*. Hence, if there remains in them nothing that is immutable, they at least require something to contain and connect them, as it were, to restrain and retain them; and this we call the *soul*. Hence, if the soul is a body of any kind, however thin, we shall still have to ask: What is it that holds it together? For we have shown that every body requires something to hold it together, and so on *ad infinitum*, till we arrive at something which is altogether without body.' " — (*Psychology*, vol. i, sec. 444.)

" An illustrious Father of the Church, also an Italian, Paulinus of Aquileia, who wrote in the eighth century, writes to the same effect. ' The soul,' he says, ' in a wonderful manner governs the whole continuous mass of the body, which otherwise would disperse and divide, and diffusing itself through the whole, animates and vivifies it, and, like a central point, indivisibly preserves its own dignity, and does not dissolve into foreign qualities. Being incorporeal, it corporeally disposes everything by means of the body, and the substance of the flesh, being corporeal, performs corporeal actions by means of an incorporeal creature, *i.e.*, the soul.' " — (*Psychology*, vol. i, sec. 449.)

" An author of the sixth century writes: ' Do you admit that the whole soul diffuses itself through each member, or that there is more of it in one member and less in another? I believe that it is all in each member of the body, because, although it is circumscribed, I do not believe that it is composed of parts in any way, since it remains entire even when the body is deprived of some of its members.' So says Joannes Maxentius." — (*Psychology*, vol. i, sec. 453.)

" St. Gregory Thaumaturgos, in his *Disputation on the Soul*, which is still extant, lays it down as a principle that ' the soul knows itself immediately from its own peculiar actions' (*eam ex propriis actionibus cognitam habemus*). The peculiar action of the soul is, that it gives life to the body. He, therefore, undertakes to examine how this takes place. He shows that, if it were united to the body as one solid

adheres to another, it could not animate the whole of it, but only the points of contact; if it were mingled with the body as one fluid is with another, it would divide into parts, and would no longer be that one identical soul which at once animates all the parts of the animal body. It follows, therefore, that it must all in all the parts of the body, and so remaining one, give life to all."—(*Psychology*, vol. i., p. 242, note.)

The above considerations will enable us to see the meaning of the formula of the ancients which we find repeated by St. Thomas, viz., that "The soul is in the body, not as contained, but as containing: 'Anima enim est in corpore ut continens, et non ut contenta.'"—(*Origin of Ideas*, vol. ii., sec. 720.)

We must now turn to Rosmini's account of the origin of our idea of our own bodies, and of the other bodies around us. He begins by defining body as "a proximate cause of our sensations," and "a subject of the sensible qualities," and proceeds as follows:—

"Our sensations suppose a cause distinct from ourselves.

"Our external sensations are facts in respect of which we are passive.

"Passive facts are actions which take place in us, but of which we are not the cause.

"But, by the principle of causation, the actions which take place in us, but of which we are not the cause, suppose a cause distinct from ourselves.

"Therefore our sensations suppose a cause distinct from ourselves, which was the thing to be demonstrated.

"Our sensations, then, suppose a cause distinct from ourselves.

"But we have seen that a cause is always a substance.

"Therefore the cause of our sensations is a substance."

(*Origin of Ideas*, vol. ii., secs. 674, 675.)

It will be seen that the doctrine of causation lies at the basis of Rosmini's teaching on these points.

According to Rosmini each one of us perceives his body in two ways, viz.:—

"(1) Like all external bodies, by the sight, the touch, in short, the five sensories. When I perceive my body as acting on my sensorial organs, I do not then perceive it, in so far as it is itself sensitive (mark this . . . for it is a point of great importance), but I only perceive it as I do any external body falling under my senses, and producing sensations in them.

"(2) We perceive our body through that *fundamental* and universal *feeling* whereby we feel the existence of life in us, and through the modifications which the same feeling receives from adventitious and particular sensations.

"These two ways of perceiving our sensitive body may be appropriately designated by the terms *subjective* and *extra subjective*.

"By being perceived in the first way, i.e., through the fundamental feeling which springs from life, our body is felt as forming one thing with us, so that in virtue of its individual union with our spirit, it becomes part of the sentient subject. Hence one may say with truth, that we *feel it as co-sentient*.

"When, on the other hand, we perceive our body in the second way, that is, as we perceive the external bodies which act on our sensitive organs, then like all of them, it is outside the sentient subject, and quite another thing from our sensitive powers. We do not feel it any longer in so far as it is co-sentient, but only in its external data, i.e., in so far as it has the aptitude to make an impression on our sensitivity."—(*Origin of Ideas*, vol. ii, sec. 701.)

"Given that we are in a sound normal state of health, the fundamental feeling which springs from life is a *pleasurable* feeling.

"It extends equally and softly through all the sensitive parts of our body; but there does not appear to be in it anything different from itself. Hence, if we could conceive a person who had never in his life experienced any particular sensations, but had always been left with the fundamental feeling alone, it would certainly be impossible for him to form that image or representation of his own body—of its form, its size, &c.—which is furnished by the sight and the other external senses."—(*Origin of Ideas*, vol. ii, sec. 725.)

"The author, in a conversation, gave one of the translators of this work (*The Origin of Ideas*) to understand that he could, when in the prime of life, while his health was perfect, observe distinctly and without much difficulty his corporeal fundamental feeling. By it he felt his body wholly divested of those attributes which fall under the external senses, in fact, felt it lost in space. And so the translators believe, would the subjective body be felt by any one who could successfully perform the experiment."—(*Origin of Ideas*, vol. ii, page 281, note.)

There is not time to dwell in detail on Rosmini's account of the way in which we reach our ideas of external bodies.

Stated briefly, it is this:—

We know of the existence of bodies through feelings, by the application of the doctrine of causation, and by means of the intuition of being.

We know of the existence of our own bodies through the fundamental feeling.

We know of the existence of external bodies by modifications of the fundamental feeling, (i.e., through ordinary sensations) which, since they do not owe their existence to us, presuppose some cause

other than ourselves. From these sensations, therefore, by means of the doctrine of causation and of the idea of being, we reach the concept of external bodies.

To this I need only add that Rosmini regards the fundamental feeling as being known to us as diffused through a certain extension : in his own words, it has extension as its mode, hence the modifications of that feeling, which we call sensation, being modifications of that which has extension as its mode, also, in their own degree, have extension as their mode, and, thus, become witnesses to the existence not only of external bodies, but also of extended external bodies.

I. Philosophically Rosmini must, I think, be regarded as belonging to the same school of thought as the great teachers of the Middle Ages. It is a modified scholasticism that he teaches, and Aristotle and St. Thomas are two of his great authorities. He is, however, essentially an independent thinker, and his attitude towards Aristotle differs widely from that of the great doctor of the mediæval schools.

I am well aware that to call a man a Scholastic, is almost equivalent in these days to pronouncing his condemnation. Yet why it should be so is hardly apparent. Many of the problems to which the Scholastics addressed themselves are, it is true, of little concern to us now, their very language has almost become unintelligible, and at times they seem to have dragged philosophical disputation far over the verge of absurdity ; but, when every deduction has been made, it still remains true that in the works of the great teachers of the 12th and 13th centuries there is a body of sane and serious thought well worth our attention. It may be said that their methods were speculative, and that now we have turned from empty speculation to the positive methods of science. Their methods were undoubtedly speculative, but is not the whole of philosophy, even the famous synthetic philosophy, speculation ? As to positive science, the temptation to interpolate a few observations is great, but I will simply say this—that I am disposed to think that if the logical methods frequently employed in the name of positive science could be submitted to one of those despised schoolmen, let us say to the great master of Conceptualism, William of Occam, he would be able to throw a very strange light on many a phrase and practice which now passes current. Then it should be noted that the ultimate problems with which philosophy is concerned lie wholly beyond the reach of science. This can teach us *facts*, but philosophy asks for *explanations*. Now, there is one class of known facts to which no very great addition has been made, I mean the purely psychological, and I would ask why should not the schoolmen, being as well acquainted with the facts as ourselves and as well able to reason about them, be able, in this department of human thought and enquiry at least, to tell us something

worth listening to? On the question of the association of ideas the moderns can tell us little that was not known to St. Thomas Aquinas, and certainly the great doctor of the schools would not, except perhaps under the pressure of some theological dogma, permit himself to play so loosely with a philosophical principle as many modern adventurers in the realms of ethics do with this principle of association.

Then, again, I very much doubt whether we have by any means exhausted the full significance of much of William of Occam's teaching. If it were more generally understood our philosophical speculations might become more modest, but I am not certain that the cause of truth would not benefit.

Certain it is, that, if the explanations of the Schoolmen do not always appear satisfactory, their definitions frequently show a clearness of perception of the real difficulties of particular problems which we may look for in vain in the works of many modern writers, and I think if I had to choose between one of the great masters of mediæval thought and, let us say, one of our neo-Darwinians, I should be fain to follow the elder teacher.

It must be remembered, however, that Scholasticism is not merely an historical system of thought, it is a potent factor in the intellectual world of to-day and as it is taught at Stonyhurst is a robust system of common sense thought not lightly to be depreciated. Moreover, it possesses all the characters of a living system, for it gives rise to more or less vigorous offshoots. With one of these—the philosophy of Rosmini—we are concerned to-night, and as another I may mention the system of Balmes embodied in his *Fundamental Philosophy*.

II. Another point to which I would call attention is the essentially rationalistic character of his system.

It appears clearly in his treatment of the object and scope of philosophy.

"Philosophy," he says, "is the science of ultimate grounds."

And "*ultimate grounds* are the answers which satisfy the last *why's* put by the human mind to itself."

He agrees that the object of philosophy is to give *quiet*, but it is a scientific and intellectual quiet that he seeks: he expressly states that spiritual assurance or persuasion is not sufficient, is not, in itself, ultimate. Here he stands in marked contrast with Cardinal Newman, the final result of whose teaching on these points seems to be that the inner certitude or conviction is the ultimate fact beyond which we cannot go, and that reasoning, at least about matters of fact, can only lead us to conclusions of greater or less probability. I must confess that I find myself more in sympathy with the English

Cardinal than with the Italian philosopher. I am content to accept as ultimate the immediate testimony of consciousness as to the world of men and things around me. I may not be able to understand *how* I know—I certainly could give no explanation of the fact of knowledge, and could produce no logical justification for trusting it—but most certainly I *know*, and to that knowledge, on the strength of the inner certitude which it brings with it, which is perhaps intrinsic to it, I am content to trust. I am well aware that this leaves unanswered and untouched the whole body of questions with which speculative philosophy concerns itself, but what of that? Is not philosophy concerned with the explanation rather than with the establishment of facts. Facts are its starting place, and they remain, standing in their own strength, revealed in their own light, whatever may be the conclusions at which philosophy arrives concerning them in its quest for explanations.

Take, for instance, the much debated question of the existence of an external world of things.

What reason have we for attributing to the objects of external perception any existence more permanent than that of the psychical states through which they are revealed? Do not the long-protracted controversies between the empirical and non-empirical schools of philosophy bear witness to the inconclusiveness of all attempts to discover or establish an extrinsic justification for this primitive datum of consciousness. The weary round of metaphysical argument upon this point is not entered upon for the purpose of producing or destroying the conviction that such a more permanent existence really belongs to the objects of the "outer sense," of *that* every one is convinced, be he philosopher or labourer, learned or ignorant. If any exceptions seem to exist in the ranks of sane men, we are justified in regarding them as apparent, rather than real, or, at most, as curious examples of the power of individuals to silence the voice of nature in the interests of a preconceived theory. No, not to produce or destroy the conviction, is the discussion undertaken, but simply to determine, if possible, the manner in which it is reached, to construct a hypothetical explanation of that which stands far beyond the limits of the controversy as an unchallenged fact.

My own personal belief is that in the last resort explanation will be found to be impossible; of the facts we may be certain, but the reasons for those facts will be for ever hidden from us. I should therefore reverse the order of Rosmini, and say that the first and essential thing is not intellectual proof, but spiritual persuasion—what Newman calls certitude. This is quite accessible to us, for, as I have said, it is intrinsic in all our knowledge, but as for intellectual quiet —those who start in search of it are on a vainer quest than those

who in the older days left the hall of Arthur to search for the Holy Grail.

Like them, they

“follow wandering fires
Lost in the quagmire.”

The same rationalism, or as we should, perhaps, rather call it, intellectualism, is seen in Rosmini's treatment of certainty.

You will permit me to place before you the chief passages in which Rosmini treats of this.

“*Certainty* is a firm and reasonable persuasion in conformity with truth.”—(*Origin of Ideas*, vol. iii, sec. 1,044.)

“*Truth* therefore, in man, is not the same thing as *certainty*.

“I may have in my mind an opinion true in itself, and yet may doubt its truth : in this case I have not certainty.

“Hence the mere fact of a thing being true in itself is not enough to render it also true to us. In order that it may be true to us, we must have a motive producing in us a *firm persuasion*, and producing it *reasonably* : that is, we must have a *reason* which logically necessitates in us the conviction that our opinion or belief is true and indubitable.”—(*Origin of Ideas*, vol. iii, sec. 1,045.)

“*Certainty*, therefore, is the result of three elements :—(1) *truth* in the object ; (2) *firm persuasion* in the subject ; (3) a motive or *reason* producing that persuasion.”—(*Origin of Ideas*, vol. iii, sec. 1,047.)

“Anything to which we give or refuse our assent may be expressed in a proposition ; and a proposition present to our mind may be called a *cognition*, so far forth as we know what it means. I shall therefore use the term *proposition*, not as expressing any one particular form of our conceptions, but as expressing in general anything to which our persuasion may refer, even though it were a simple idea, since even an idea can, as I have said, be expressed by a proposition.

“So much being premised, I say that what causes *persuasion* in us or takes it away, is the assent or dissent we give to a proposition.

“Now assent in order to produce a persuasion entitled to the name of *certainty*, must be prompted by a *reason*, and not given at random or blindly.

“A *reason*, therefore, is invariably the cause of *certainty*; and of the three elements whence *certainty* results, it is the *third* (i.e. the sufficient reason) that generates it in the individual.”—(*Origin of Ideas*, vol. iii, sec. 1,052.)

In these passages the characteristic of Rosmini's teaching to which I have called attention is clearly seen.

Now, it seems to me that we must of necessity eliminate from our definitions of certitude all such dualism as Rosmini introduces. We

must be content to accept the subjective certitude inherent in the data of experience without endeavouring to penetrate into some metempirical realm to ascertain whether things as they are, are really just what experience reports them to be. Concerning the data of experience we can be certain. They belong wholly to the subjective realm (although, beyond question, they reveal to us a world which is not subjective), and, in the only sense in which we can speak of the real, they are real, and we need no objective criterion of truth in order to accept them. The certitude which is given in experience itself is ultimate and adequate. Cardinal Newman endeavoured in his *Grammar of Assent* to preserve the distinction between the external criterion and the inner certitude, but he had to confess that this raised the question of the difference between real and apparent truth, a question which he was wholly unable to solve, and in more than one passage we find him relying solely on the subjective certitude, without reference to anything objective.

III. From Rosmini's doctrine concerning the origin of our knowledge I entirely dissent.

It seems to me quite untrue to say that our knowledge arises out of judgments. As I have said before, knowledge is ultimate and undervived. If it be asked by an advocate for Rosmini how can we think of things as existing unless we already possess the idea of being—I reply, “I am sure I do not know; I *know* that things do exist, and I also know that I can think about them as existing, but beyond that I see no occasion to go.” Our intellectual life begins with knowledge, not with ideas or judgments, and that knowledge needs neither vindication nor explanation in order that we may accept it. This appears to be the fundamental error which vitiates so much of the *Grammar of Assent*. Dr. Newman started with assent and endeavoured to travel from simple assents to certitude. Now it seems to me to be equally incorrect to start in this way as to start from judgments or ideas. What reason is there for saying that our active intellectual life starts with assent? Is it not far nearer the truth to say that it starts with assertion—with the assertion, that is, of the knowledge given in experience? It was because Newman started from this purely artificial position, instead of from facts as given in experience, that he was, as we have seen, never able to show the way to certitude.

I have ventured upon what may, perhaps, seem to be an interpolation, because several of Rosmini's remarks on this subject are strikingly like those of the great Cardinal.

IV. The principal criticism I desire to submit on the details of Rosmini's system is this—that he does not appear to keep us clear of idealism.

This, I know, he expressly repudiates. He declares that the idea of being is *not*, like Kant's forms and categories, constitutive of the objects of perception, but is simply the means by which we come to know them. He says elsewhere that the idea of being is simply a logical principle by which we judge of the existence of things.

On the other hand, however, there are many passages in which he almost explicitly adopts the view he in other places rejects. The idea of being is no longer a simple principle of judgment, it is something real perceived by the intellect, which, when added (synthesis is the very word he uses) to the object of the corporeal sensitive perception, constitutes the latter a being, and makes it the object of intellectual perception.

I will not detain you with a multitude of examples; it will be sufficient to illustrate my meaning if I draw your attention to the following phrase taken from the *Philosophical System* :—

“In perception we add the essence of being to feeling.”

Does not this embody the very essence of idealism?

The same aspect of his teaching is strikingly brought out in that chapter in his *Psychology* which deals with the union of the soul and body. In the opening sentence he says :—

“That among the things different from the soul, the body is the only reality capable of being felt and perceived by man—is a fact which we learn from consciousness, and which therefore requires no other proof but this immediate one.

“Hence we may derive an immediate and most important corollary, which is, that the soul and the body are united by means of feeling.”

I will not detain you by an analysis of this passage; the critical words are those with which it concludes—“are united by means of feeling”—that is, something which is purely subjective is made to serve as a bond which, if it exists at all, must be objective.

The very same criticism may surely be passed upon a passage I have already quoted :—

“Hence, having removed the veils of such relations, we have found at the bottom of the *Ego* a *feeling* anterior to the *consciousness*—a *feeling* which constitutes the pure substance of the soul.” “A *feeling* which constitutes the pure substance of the soul.” Is not this pure idealism?

V. The hour is getting late, and I must not detain you for many minutes longer, but there are three other points of considerable interest to which I desire to invite your attention.

(1) It is interesting to notice how often, in details of his system, Rosmini approximates to or coincides with the distinctively modern school of thought.

To begin with, his fundamental feeling seems to be essentially the

same thing as that sixth sense or vital feeling about which modern psychologists and physiologists have recently commenced to talk.

Then, again, the manner in which he makes the idea of force enter into our conceptions of bodies, is strikingly similar to Herbert Spencer's derivation of the concept of matter from experience of force.

More interesting still is the manner in which he deals with our knowledge of natural objects. Of these we know he says, two things —(1) that they exist; (2) that they have the power to excite in us those sensations which we customarily regard as directly indicating the qualities of the external bodies which excite them.

Upon this second point the subjectivism of his teaching is complete.

We must not think, he says, that these qualities exist in the objects as they appear to us; they have in themselves no objective existence, they are simply modifications of our own sensitivity. The most we can say is that bodies have powers capable of exciting such sensations in us.

The correspondence of this with much of current scientific teaching is almost too obvious to need pointing out.

(2) In the scholastic philosophy it is, I believe, customary to speak of the Ego as representing the entire man and, not simply the soul or spirit. Rosmini, it will have been noticed, adheres to the modern usage, but his teaching that the body forms one co-sentient subject with the soul renders his divergence from the doctrine of St. Thomas little more than nominal.

(3) The third and last point is Rosmini's teaching concerning our knowledge of the existence of God.

He denies explicitly that man can have in this life a positive idea of God. In a footnote to one of the sections in which he deals with the obscure and fantastic Transcendentalism of Bardili we read as follows:—

"Bardili, by assuming that man with his natural powers has a positive idea of God, fell into the same error as Schelling. The effect of this error is to create a false enthusiasm by inspiring men with an extravagantly exaggerated notion of his intellectual greatness; and throwing his imagination into a thrilling ferment of self-satisfaction at the contemplation thereof. Moreover, as I have repeatedly pointed out, the supposition that man has in himself the power adequately to perceive God inevitably induces pantheism."

The sections in his *Sistema Filosofico* which are devoted to Natural Theology deal with the matter in an entirely abstract and metaphysical manner, and do not contain a sentence calculated to awaken or strengthen faith.

In another place he speaks as though the idea of being which

stands before our minds—initial being, as he in one place names it—were, in some way or other, a dim shadow of the divine existence. Concerning it he says—“Is initial being God Himself? I answer No, because it lacks something which belongs to the divine essence. It lacks term, completion; which is equivalent to saying that it lacks self-subsistence, reality, and if the object of conception lacks anything, be it what it may, the thing perceived is not God, since, as Sebadino excellently says, ‘Nothing is proper to God unless it is full and perfect;’ that is, that being which is deficient in anything is not God. At the same time, if being should complete itself, that is if we should see being not initially but completely, then what we should see would deserve the name of God.”

I must confess that this seems to me a most inadequate and unsatisfactory basis for a philosophy of Religion, far less adequate and satisfactory than that which could be framed out of the writings of, let us say, St. Augustine, or of almost any of the great writers of the Middle Ages. Even the apostle of Conceptualism, William of Occam, points to a more excellent way than Rosmini.

Indeed, if our knowledge of God were such as Rosmini would have us believe, then would Religion, at least in its Christian form, be an impossibility, for this presents God to us as the supreme object of worship, of service, and of love. Now, these are acts which require a *person, apprehended as such*, as their object, and which cannot be performed unless such an object be thus apprehended. We can neither worship nor serve nor love a pure abstraction; a person, and a person alone, can be the object of these activities. But neither can a person who, although existing, is unknown to us to exist, or is unknown to us to exist as a person, be the object of devotion. That object must be a person known to exist as such. If, therefore, the Christian life be possible to us we must in some manner know God as an existing reality.

We may not on this occasion pursue this to any length, but this I may perhaps venture to say, that such a knowledge of God as I have referred to seems to me to be given to man in his moral and religious consciousness. This is a lesson plainly taught by Cardinal Newman in the *Grammar of Assent*, while Dr. Martineau, the greatest prose writer of our day, and one of our most accomplished philosophical critics, in a sermon of surpassing beauty, says with reference to Science, Art, and Religion:—

“These all go to life and nature to seek for that which the senses cannot apprehend nor the sciences explain; for glances of thought that appeal to the loving eye, for ideal aims that gleam through the dross and dust of reality, for the spirit of a calm Heaven and a dear God beneath the rush of change and the cold neutrality of nature.”

A P P E N D I X.

REPORT OF THE EXECUTIVE COMMITTEE FOR THE
TWELFTH SESSION.—1890-91.

THE Session which is now drawing to its close leaves the position of the Society very much where it found it, in respect both of numbers and efficiency, in the systematic study of philosophy. Though six new members have joined us in the course of it, they do but fill places which have become vacant. At the same time, the value and interest of the papers read, and of the discussions upon them, seem fully to keep up to their usual standard.

Nevertheless the Committee cannot avoid remarking the comparatively small place which the subject of philosophy proper fills in them. In this subject hardly any original work has been done, and hardly any study of contemporary writers displayed. Yet this is avowedly the primary purpose of the Society, without fulfilling which, we have no justification for continuing to meet. Original thought on this as on every subject cannot be maintained without reading what is being written at the present day, as well as what has already become matter of the history of philosophy. In this view of the case the Committee would draw attention to the valuable work of Professor A. Riehl, *Der Philosophische Kriticismus*, 3 vols., Leipzig, 1876 to 1887, which they have included in their list of suggestions.

Suggestions of subjects for the programme of next Session :—

FOR SYMPOSIA.

1. Is the Universe infinite ?
2. Eudæmonism, or Happiness, as the basis of Ethic.
3. Origin of the perception of an External World.
4. Analysis of Reason as a function.

FOR PAPERS.

1. Epictetus. *The Enchiridion, and the Dissertations.* To be found in a vol. of Didot's series. Paris, 1842.
2. Scotus Erigena; *De Divisione Naturæ.*
3. Jacob Behmen's "Three Principles of the Divine Essence," to be found in William Law's edition, vol. i. 1764.
4. The Correspondence between Leibniz and Clarke.
5. Croll's Philosophical Basis of Evolution.
6. Dr. Münsterberg's Method and Results.
7. Prof. A. Riehl's *Der Philosophische Kriticismus.*
8. Prof. William James's *The Principles of Psychology.*
9. Prof. Lloyd Morgan's Metakinesis. (See his *Animal Life and Intelligence*, chapter xii.)
10. On the true sense of the term *a priori*.
11. What is meant by *Monism*?
12. Meaning of the term *Life*.
13. What is the true sense of the term *Pleasure*?
14. What constitutes Philosophy a separate pursuit?

To which may be added any suggestions made in former Reports which have not already been acted on.

ARISTOTELIAN SOCIETY.

FINANCIAL STATEMENT.—12TH SESSION, 1890–91.

<i>Receipts.</i>	<i>Expenditure.</i>
Balance brought forward from 11th Session	£ s. d. 34 11 7
Members' Subscriptions	Rent of rooms, 22, Albemarle Street
	Printing : Harrison and Sons—
Sale of Proceedings	Proceedings, vol. i., No. 8, Part 1 .. 17 10 0
	" " Part 2 .. 21 17 6
	" " No. 4, Part 1 .. 8 15 6
	<hr/>
	Offprints to Authors
	Cards of Meetings, Post Cards, &c.
	Advertisements
	Type writing—Symposium papers
	Miscellaneous—Postage, Gratuity to attendants, &c. .. 4 0 6
Balance—	
Due by Publishers	2 13 6
In hands of Treasurer..	6 13 6
	<hr/>
	£80 14 0
	<hr/>
	£80 14 0

Examined and found correct,
 E. H. RHODES,
 SHEPPERSON BARNES.

June 8, 1891.

LIST OF PAPERS READ BEFORE THE SOCIETY

DURING THE TWELFTH SESSION, 1890-91.

1890.

Nov. 3.—The President, "The Laws of Association" (p. 1).
 „ 17.—R. B. Haldane, M.P., "The Categories of Scientific Method" (p. 22).
 Dec. 1.—B. Bosanquet, "On the main Outlines of the Hellenic Theory concerning the Beautiful."
 „ 15.—Symposium: "Does our Knowledge or Perception of the Ego admit of being Analysed?" A. Boutwood, H. W. Blunt, and G. F. Stout (p. 28).

1891.

Jan. 5.—Rev. T. B. Strong, "'Lux Mundi' and Dr. J. Martineau's 'Seat of Authority in Religion' compared."
 „ 19.—F. C. Conybeare, "Professor Clifford's Philosophy."
 Feb. 2.—S. Alexander, "The Idea of Value."
 „ 16.—G. F. Stout, "The Psychology of Belief."
 Mar. 2.—Symposium: "Has Optimism or Pessimism the deeper roots in Human Nature?" F. C. Conybeare, E. W. Cook, and Rev. P. N. Waggett.
 „ 16.—R. J. Ryle, "The Philosophy of Roger Bacon" (p. 41).
 April 6.—D. G. Ritchie, "Darwin and Hegel" (p. 55).
 „ 20.—Bernard Holländer, "Comte's Analysis of the Human Faculties" (p. 74).
 May 4.—Rev. H. Rashdall, "The Principle of Authority in its relation to Morals" (p. 96).
 „ 25.—Symposium: "Heredity as a Factor in Knowledge." B. Bosanquet, F. H. P. Coste, and D. G. Ritchie.
 June 8.—Arthur Boutwood, "The Philosophy of Rosmini" (p. 110).

RULES OF THE SOCIETY.

NAME.

I.—This Society shall be called “THE ARISTOTELIAN SOCIETY FOR THE SYSTEMATIC STUDY OF PHILOSOPHY,” or, for a short title, “THE ARISTOTELIAN SOCIETY.”

OBJECTS.

II.—The object of this Society shall be the systematic study of Philosophy; 1st, as to its historic development; 2nd, as to its methods and problems.

CONSTITUTION.

III.—This Society shall consist of a President, Vice-Presidents, an Editor, a Secretary (who shall be Treasurer), and Members. The Officers shall constitute an Executive Committee. Every Ex-President shall be a Vice-President.

SUBSCRIPTION.

IV.—The annual subscription shall be one guinea, due at the first meeting in each session.

ADMISSION OF MEMBERS.

V.—Any person desirous of becoming a member of the ARISTOTELIAN SOCIETY shall apply to the Secretary or other officer of the Society, who shall lay the application before the Executive Committee, and the Executive Committee, if they think fit, shall nominate the candidate for membership at an ordinary meeting of the Society. At the next ordinary meeting after such nomination a ballot shall be taken, when two-thirds of the votes cast shall be required for election.

CORRESPONDING MEMBERS.

VI.—Foreigners may be elected as corresponding members of the Society. They shall be nominated by the Executive Committee, and notice having been given at one ordinary meeting, their nomination shall be voted upon at the next meeting, when two-thirds of the votes cast shall be required for their election. Corresponding members shall not be liable to the annual subscription, and shall not vote.

ELECTION OF OFFICERS.

VII.—The President, three Vice-Presidents, Editor, and Secretary, shall be elected by ballot at the last meeting in each session. Should a vacancy occur at any other time, the Society shall ballot at the earliest meeting to fill such vacancy, notice having been given to all the members.

SESSIONS AND MEETINGS.

VIII.—The ordinary meetings of the Society shall be fortnightly, on Monday evenings, unless otherwise ordered by the Society. They shall commence in October or November, and end in June or July of each year. Such a course shall constitute a session. Special Meetings may be ordered by resolution of the Society or shall be called by the President whenever requested in writing by four or more members.

BUSINESS OF SESSIONS.

IX.—Before the close of each year the Society shall arrange a programme for the study of Philosophy in the two departments mentioned in Rule II. for the following session. At the last meeting in each session the Executive Committee shall report and the Secretary shall make a financial statement, and present his accounts audited by two members appointed by the Society at a previous meeting.

BUSINESS OF MEETINGS.

X.—Except at the first meeting in each year, when the President or a Vice-President shall deliver an address, the study of Philosophy in both departments shall be pursued by means of discussion, so that every member may take an active part in the work of the Society.

Each member shall, if possible, contribute a paper or otherwise initiate a discussion at least once in each session.

PROCEEDINGS.

XI.—The Proceedings of the Society in each session shall be published. The Executive Committee shall form the Publishing Committee.

BUSINESS RESOLUTIONS.

XII.—No resolution affecting the general conduct of the Society and not already provided for by Rule XV. shall be put unless notice has been given and the resolution read at the previous meeting.

QUORUM.

XIII.—No proceedings shall take place unless a quorum of five members be present.

VISITORS.

XIV.—Visitors may be introduced to the meetings by members.

AMENDMENTS.

XV.—Notices to amend these rules shall be in writing and must be signed by two members. Amendments must be announced at an ordinary meeting, and notice having been given to all the members, they shall be voted upon at the next ordinary meeting when they shall not be carried unless two-thirds of the votes cast are in their favour.

LIST OF OFFICERS AND MEMBERS.
FOR THE THIRTEENTH SESSION, 1891-92.

PRESIDENT.

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VICE-PRESIDENTS.

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		Date of Election.
CATTELL, J. M., M.A., Ph.D., University of Pennsylvania, United States	June 17th, 1889.
DAVIDSON, THOMAS, Orange, New Jersey, United States	.. .. .. .. .. ..	Nov. 12th, 1883.
DZIEWICKI, M. H., Krasnystaw, Poland..	.. .. .. .. .. ..	June 6th, 1891.
HARRIS, WILLIAM T., LL.D., Concord, Mass., United States	Dec. 19th, 1881.
JAMES, Prof. WILLIAM, M.D., Cambridge, Mass., United States	Feb. 5th, 1883.

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ALEXANDER, SAMUEL, M.A., <i>Vice-Pres.</i> , Lincoln College, Oxford	April 13th, 1885.
ANDERSON, Miss A. M., 1, Fitzjohn's Avenue, N.W. Nov. 19th, 1888.
BAIN, Prof. A., LL.D. Aberdeen Jan. 7th, 1884.
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BOSANQUET, BERNARD, M.A., <i>Editor</i> , 7, Cheyne Gardens, Chelsea, S.W. Nov. 22nd, 1886.

	Date of Election.
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RYLE, R. J., M.A., Hadley, Barnet	<i>March 31st, 1890.</i>

	Date of Election.
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